HEALTH PSYCHOLOGY | RESEARCH ARTICLE

Body image and the role of romantic relationships
Maria Fernanda Laus¹,²*, Sebastião S. Almeida¹ and Lori A. Klos²

Abstract: A variety of sociocultural factors have been recognized as important influences on appearance-related issues but little research has examined the intersection between romantic relationships and body image among adults. This study examined whether self-evaluative and motivational investment in appearance, overweight preoccupation, and body satisfaction differ between men and women who were involved (or not) in a romantic relationship. Moreover, we investigated the associations between relationship experiences (relationship type, relationship length, commitment, passion, and intimacy) and body image. To that, 423 men (M_{age} = 45.32 ± 13.86 years) and 505 women (M_{age} = 43.52 ± 13.07 years) completed an online survey through the SurveyMonkey Audience database in the United States, including several measures of body image and relationship functioning. Our results demonstrated that the importance given to appearance was lower among uninvolved (“single”) participants; overweight preoccupation did not differ between men and women who were involved or not in a romantic relationship; and that single men and women were more dissatisfied with their overall appearance than adults who were romantically involved but not currently cohabitating. For men and women, romantic involvement plays a pivotal role in promoting and maintaining a less negative body image. The type of relationship and its functioning are also important.

ABOUT THE AUTHOR
The present study is the result of a collaboration between two research groups. L.A.K. is the co-director of the “Body Weight & Shape Research Lab” (BWSRL) in the Department of Kinesiology at the University of Wisconsin-Milwaukee. The BWSRL explores questions regarding the interpretation of body weight and shape within various sociocultural contexts and populations. S.S.A. is the leader of the research group “Nutrition and Behavior” at the Department of Psychology, University of São Paulo in Ribeirão Preto, Brazil. The group has been investigating appearance-related issues for more than 10 years in the country. M.F.L. is a postdoctoral researcher from the group “Nutrition and Behavior”, who joined the BWSRL’s group to perform the study she conceived with the support from L.A.K. and S.S.A.

PUBLIC INTEREST STATEMENT
Family, peers, and media influence how people see themselves, and their beliefs, feelings, and behaviors related to their physical appearance. Nevertheless, little is known about the impact of one’s romantic situation on appearance-related issues. Here, we examined the relationship between romantic relationships and several aspects of body image. Our results demonstrated that single people place less importance to their appearance than romantically committed individuals but are less satisfied with their appearance. We also found that the type of relationship (i.e. dating, cohabitation, or marriage) and several aspects of the relationship (e.g. levels of passion, commitment, intimacy, relationship satisfaction, and relationship duration) are tied to a more favorable body image. In sum, romantic relationship status is an important influence on one’s body image and, therefore, should be taken into account in the design and implementation of education and intervention efforts that address the development of a more positive body image and decreased weight concerns.
aspects related to body image. This study provides some context for understanding the importance of romantic situation on one’s body image.

Keywords: romantic relationships; body image; appearance investment; overweight concerns; body satisfaction; relationship quality

1. Introduction
A variety of sociocultural factors have been recognized as important influences on appearance-related issues, and there is little debate that family, peers, and the media play an important role on the development of children and adolescents’ body image (McCabe & Ricciardelli, 2003; Vincent & McCabe, 2000). However, as they transition into adulthood, individuals tend to seek/maintain a romantic partner, and it is surprising that little research has examined the intersection between romantic relationships and body image among adults.

In the present study, we examined whether psychological investment in appearance, weight concerns, and body dissatisfaction differ between men and women who were involved in a romantic relationship and those who were not romantically involved. We included more nuanced romantic relationship categories (e.g. non-cohabitation, cohabitation, and marriage) compared with prior research and we also investigated the association between body image and relationship characteristics and functioning (relationship length, relationship satisfaction, commitment, passion, and intimacy). The empirical basis of this study is guided by two important theories: the “selection hypothesis” of marriage and the “marriage market” theory.

1.1. Theoretical background
There is an extensive literature suggesting the existence of a marriage selection hypothesis (Horwitz & White, 1991; Horwitz, White, & Howell-White, 1996; Lee, 2015; Mastekaasa, 1992; Stutzer & Frey, 2006), which suggests that healthier people may be more likely to be selected into marriage, and the criteria to select a mate includes physical attractiveness and aspects related to mental and physical health (Goldman, 1993). In line with this assumption, Dion, Berscheid, and Walster (1972) asked participants to estimate the likelihood that physically attractive and unattractive people, both males and females, would marry early or marry at all. Results from this study demonstrated that attractive individuals were expected to marry earlier and to be less likely to remain single.

It has long been argued that men value physical attractiveness in potential mates more than women do, while women value a potential mate’s earning capacity more so than men (Buss, 1989; Stewart, Stinnett, & Rosenfeld, 2000). Several studies, however, have been demonstrating that this might not always be true. Eastwick’s works, for example, indicate that men and women have identical tendencies to associate physical attractiveness with the concept of an ideal romantic partner (Eastwick, Eagly, Finkel, & Johnson, 2011; Eastwick, Luchies, Finkel, & Hunt, 2014). Walster, Aronson, Abrahams, and Rottman (1966) conducted a classic study in which first-year college students were randomly paired with another at a dance, and answered questions about their attraction to their date, how interested they were in perusing a second date with their partner, and investigated, a few months later, who actually pursued a second date. Their results demonstrated that personality, self-esteem, and intelligence were unrelated to couple compatibility. The largest determinant of romantic interest was how attractive the participant’s date was. Further, a meta-analysis performed by Langlois and colleagues (2000) tested the prediction that attractiveness should be more important in how men judge and treat women than in how women judge and treat men. Their findings, however, did not support these predictions for either judgment or treatment—no gender difference was found in the importance of attractiveness. Finally, Buss, Shackelford, Kirkpatrick, and Larsen (2001) evaluated the cultural evolution of mate preferences over 57 years.
and found that both sexes increased the importance they attach to physical attractiveness in a mate. In sum, these data support the universal importance of attractiveness for partner preferences among men and women.

Studies that investigate attraction in the context of speed dating and online dating have also been demonstrating that self-reported mate preferences deviate markedly from actual mate choices (e.g. Eastwick & Finkel, 2008; Todd, Penke, Fasolo, & Lenton, 2007). That is, both men and women, in their actual partner choices, prefer more physically attractive partners to the same extent. For example, Kurzban and Weeden (2005) investigated the choices that people make in dating partners using data provided by a commercial dating service, and found that choices made by both men and women derived almost exclusively from physically observable attributes like attractiveness, body mass index (BMI), height, and age, while their choices were unrelated to other attributes such as education, religion, sociosexuality, having children, or desiring future children. Another study has also concluded that the strongest predictor of initial attraction in a speed-dating context was partner’s physical attractiveness, and, most importantly, men and women showed an extremely similar pattern (Luo & Zhang, 2009).

A second theoretical perspective from which our study was drawn relies on the competition established as people seek a partner, which presumably creates a “marriage market” (Becker, 1974). The success rate of attracting a mate is dependent on the individual’s own value in this market and it has been suggested that the incentives to make health/attractiveness investments to gain a high value on the marriage market vary with marital status (Lundborg, Nystedt, & Lindgren, 2007). For example, a qualitative study of newly married couples found that participants, once in a committed romantic relationship, became less concerned about gaining weight or being overweight (Bove & Sobal, 2011), possibly because they see themselves out of the “marriage market” and no longer need to attract an intimate partner (Dinour, Leung, Tripicchio, Khan, & Yeh, 2012). In this direction, studies have shown that intrasexual competition (ISC), which refers to rivalry amongst members of the same sex for access to mates, is strongly associated with drive for thinness and disordered eating behavior in women (Abed et al., 2012; Faer, Hendriks, Abed, & Figueredo, 2005). Thus, it is plausible that non-partnered individuals will invest more attention and resources to become more attractive to prospective partners.

It is noteworthy that people with high amounts of desired characteristics are more likely to couple with others of equally high value (e.g. social status, intellect), and individuals with lower value will pair with similarly “poor” others (Regan, 1998). In fact, because most people in America eventually marry (U.S. Census Bureau, 2015), less desirable physical characteristics, such as overweight or obesity, does not appear to prevent marriage but it may influence partner selection and mate quality (Averett, Sikora, & Argys, 2008). In light of this body of knowledge, body image concerns and investment in the physical self could be viewed as an adaptive way of securing and maintaining romantic relationships (Sanchez & Kwang, 2007).

1.2. Body image and romantic relationships

Body image is a multidimensional construct that includes self-perceptions of one’s physical appearance and attitudes about the body (Cash, 2012). Body image attitudes are classified into four components: body satisfaction, feelings (e.g. affect, emotions, anxiety, stress, discomfort), cognition (e.g. thoughts, social comparisons, investment in appearance, internalization of beauty ideals), and behavior (e.g. avoidance, body-checking) (Menzel, Krawczyk, & Thompson, 2011). Even though it is widely recognized that body image has several dimensions, a great deal of researchers use only one measure to assess the construct, commonly body dissatisfaction (Smolak & Cash, 2011). While this is an important aspect of body image, several others are also relevant to consider in the context of romantic relationships.

One dimension of special interest to the present study is the psychological investment in physical appearance, which has been neglected by researchers worldwide. Appearance investment
represents the psychological importance of appearance in individual’s life (Cash, 2003), including the centrality of appearance to one’s sense of self (Cash, Melnyk, & Hrabosky, 2004). As reported by Thomas F. Cash in several occasions (i.e. Cash, 2003, 2012), there are two different forms of appearance investment, namely self-evaluative and motivational. Self-evaluative investment reflects the extent to which individuals define or measure themselves by their physical appearance, which they judge essential in their daily experiences. Motivational investment refers to the importance of having or maintaining an attractive appearance. It reflects the extent to which individuals engage in behaviors to manage their appearance. Importantly, self-evaluative investment is more dysfunctional than motivational investment (Cash, 2012). While the first is more predictive of negative body image, the second is thought to be relatively benign.

As already mentioned elsewhere, the influence exerted by family, peers, and the media on one’s body image is widely studied, but much less is known about how romantic relationships relate to various components of body image, especially at midlife. Here, the term “romantic relationships” will be used to indicate relationships in general (non-cohabitation, cohabitation, or marriage), unless otherwise specified.

We were able to find three studies that compared body dissatisfaction between married and single individuals. Friedman, Dixon, Browell, Whisman, and Wilfley (1999) interviewed 16,377 men and women and investigated whether married individuals have comparable body image disturbance to non-married individuals. Results demonstrated that marital status was not significantly related to body dissatisfaction, but low marital satisfaction was significantly related to greater body dissatisfaction. Hoyt and Kogan (2001) examined body image and relationship satisfaction in 101 male and 187 female college students. The authors concluded that single, engaged, and married participants were equally satisfied with their appearance and physical attractiveness, but individuals who had less satisfying dating situations and sex lives were less satisfied with their overall appearance. Interestingly, those most dissatisfied with both their dating situations and sex lives were those who were not currently engaged in a dating relationship. Finally, Tom, Chen, Liao, and Shao (2005) investigated the importance of body image dissatisfaction as a function of marital status in 141 married couples and 274 single people. Body image dissatisfaction was observed in both married and single people at comparable levels, but single women rated it more important that they strive to change to reach the ideal body than did married women. The authors concluded that marriage decreases the importance of the ideal, thin, body and makes the impact of the unattainable body less powerful. Importantly, participants in their study reported high levels of marital satisfaction, leading the authors to speculate that relationship quality may be necessary to the mitigation of the importance of the ideal body image.

In this direction, Juarez and Pritchard (2012) examined the effect of three measures of relationship quality on body dissatisfaction in 256 women and 170 men. Results demonstrated a negative correlation between body dissatisfaction and trust and support in men and women, but relationship commitment was not related to body dissatisfaction. In a study conducted by Juda, Campbell, and Crawford (2004), 100 heterosexual women currently involved in a romantic relationship responded to three subscales of the Eating Disorders Inventory: Body Dissatisfaction, Drive for Thinness, and Maturity Fears; questions measuring perceived parental readiness, and perceptions of social support from their partners, family, and friends. The authors reported that higher levels of dieting symptomatology were uniquely associated with perceptions of relatively low levels of available support from romantic partners.

Some researchers included both partners in their studies to evaluate the influence of relationship functioning on body image. Markey and Markey (2006) examined young women’s satisfaction with their own bodies, their perceptions of their significant others’ satisfaction with their bodies, and their significant others’ actual satisfaction with their bodies. Ninety-five heterosexual couples completed a figure rating scale, a measure of relationship love and harmony, and informed the length or duration of couples’ relationships. None of the correlations between relationship quality
and body satisfaction were significant, but relationship length was negatively associated with women's perceived partners' satisfaction. The study conducted by Morrison, Doss, and Perez (2009) with 88 heterosexual couples explored the relations between eating, weight, and shape concerns and relationship functioning (i.e. global relationship quality and negative relationship events) among men and women and did not find significant associations between the measures. Lastly, Goins, Markey, and Gillen (2012) examined men's body image in the context of their romantic relationships and found that they expressed greater body satisfaction when there was a relatively high degree of sexual intimacy in the relationship.

As could be noticed in some studies cited above (Juda et al., 2004; Morrison et al., 2009), another important variable linked to body image and romantic relationships is weight concerns. Preoccupation on being overweight includes worries about being or becoming fat, consciousness of small changes in weight, and diet practices (Cash, 2000). In fact, some researchers have demonstrated that dieting behaviors can be associated to relationship status and relationship quality. For example, Markey, Markey, and Birch (2001) examined the relations between couples' marital quality and dieting behavior. One hundred and eighty-seven married couples' dieting behaviors, marital quality, BMI, weight concerns, depression, and self-esteem were evaluated, and the authors concluded that marital discord predicted unhealthy dieting behaviors among wives, even after wives' BMI, weight concerns, self-esteem, and depression were controlled for.

In another study, Sheets and Ajmere (2005) explored the importance of weight in college students' dating relationships and the expression of weight-related concerns between dating romantic partners. Five hundred and fifty-four undergraduates were interviewed, and results demonstrated that overweight women were less likely to be dating than their peers; and that weight was positively correlated with relationship satisfaction in men, but negatively correlated with satisfaction in women. Finally, Boyes, Fletcher, and Latner (2007) investigated unhealthy dieting (e.g. skipping meals, vomiting), healthy dieting (e.g. reducing calories, reducing, or eliminating snacks), and body satisfaction in intimate relationships in 57 predominantly unmarried couples. Results demonstrated that intimate relationships are linked in important ways with dieting and body image but that related psychological processes operate differently for men and for women. Women who dieted more and had more negative body image had partners who were less satisfied with their relationships.

Altogether, these studies demonstrate the necessity of clearly establishing which characteristics of relationships act as a positive influence on one's body image. In this sense, several theories can be applied to determine which aspect of love is important to be considered. One of the most cited theory is the Sternberg's Triangular Theory of Love (Sternberg, 1986), which deals both with the nature of love and with loves in various kinds of relationships. The theory holds that love can be understood in terms of three components: intimacy, passion, and commitment. These three components are somewhat intercorrelated and have appeared in various other theories of love (Aron & Westbay, 1996).

In addition, little is known about body image in the context of different types of relationships. For example, there are several differences between marriage and cohabitation, whether the latter is thought as an alternative or a precursor to marriage. In general, cohabiting relationships are shorter and entail less commitment and investment than marriage (French, Popovici, Robins, & Homer, 2014). On the other hand, cohabitation resembles marriage in several respects, providing individuals security to a greater extent than non-cohabitation. Thus, one might postulate that body image experiences may vary according to relationship arrangements.

In sum, further research exploring the connections between romantic relationships and body image is still needed. As negative body image is associated with poor psychosocial functioning (e.g. perfectionism, low self-esteem, and eating disturbance) (Cash et al., 2004), the investigation of factors that might influence appearance-related issues is essential for establishing and improving intervention strategies. Thus, this study aimed to evaluate if the importance given to appearance (namely psychological investment in appearance), overweight concerns, and body dissatisfaction...
differ between men and women who were involved (or not) in a romantic relationship. Moreover, we investigated the association between relationship experiences (type of relationship, relationship length, commitment, passion, and intimacy) and body image. We extended prior research by investigating several components of body image (e.g., investment in appearance and overweight concerns), including more nuanced romantic relationship categories (e.g., non-cohabitation, cohabitation, and marriage), and exploring the association between measures of body image and relationship quality that have not yet been investigated (e.g., intimacy and passion).

1.3. Hypotheses

Hypothesis 1: Single men and women will report higher levels of self-evaluative and motivational investment in appearance, will be more concerned about their weight, and will be more dissatisfied with their overall appearance than their romantically involved counterparts.

Hypothesis 2: The longer men and women are single, the higher their self-evaluative and motivational investment in appearance, weight concerns, and body dissatisfaction.

Hypothesis 3: Among romantically involved adults, relationship duration, relationship satisfaction, and higher levels of commitment, intimacy, and passion will be negatively associated with self-evaluative and motivational investment in appearance, weight concerns, and body dissatisfaction.

2. Methods

2.1. Participants

Participants included 423 men and 505 women who were members of the SurveyMonkey Audience database in the United States (https://www.surveymonkey.com/mp/audience/our-survey-respondents/). Participants were excluded from the study if they were younger than 18 years old; currently or recently pregnant (within the past 12 months); had any medical condition that may affect their physical appearance (e.g., AIDS, cancer, severe burns); or if they recently had or were seeking weight loss surgery. On average, men were 45.32 years of age (SD = 13.86, ranging from 18 to 67 years) and women were 43.52 years of age (SD = 13.07, ranging from 18 to 72). The majority of the sample included white (men = 69.3%; women = 76.6%) and heterosexual (men = 87.0%; women = 85.9%) adults. Forty-two percent of men and 44.8% of women had attained at least a bachelor’s degree. About 29.3% of men were normal weight and 69.7% were overweight or obese. Among women, 39.2% were normal weight and 56.4% were overweight or obese. Mean BMI was 27.70 kg/m² (SD = 5.47) for men and 26.98 kg/m² (SD = 6.53) for women. Forty-two percent of men were single (i.e., not dating; divorced, separated, or widowed, but not currently involved in a close romantic relationship) and 58.4% were romantically involved: 11.1% were not cohabitating, 9.9% were cohabitating, and 37.4% were married. Twenty-seven percent of women were single and 73% were romantically involved: 10.3% were not cohabitating, 16.8% were cohabitating, and 45.7% were married.

2.2. Measures

2.2.1. Sociodemographic variables

Participants self-reported their age, height, weight race/ethnicity, educational level, sexual orientation, romantic relationship status—(1) not involved (single, casually dating one or more persons, divorced, separated, or widowed, but not currently involved in a close romantic relationship) or (2) involved (exclusively dating one person and not living together, exclusively dating one person and living together, engaged to be married and not living together, engaged to be married and living together or married), duration of non-attachment, and current relationship duration.

2.2.2. Body image

Appearance Schemas Inventory-Revised (ASI-R) (Cash, 2003): The ASI-R was used to evaluate psychological investment in appearance. It assesses beliefs or assumptions about the importance,
significance, and influence of appearance through 20 items divided into two factors: (1) Self-Evaluative Salience, which taps a dysfunctional type of investment and reflects the intensity to which beliefs about appearance influence the social and personal life; and (2) Motivational Salience, which reflects the intensity of concern about people’s appearance and how individuals adopt behaviors to control it. Participants were asked to respond each item based on the four weeks prior to the study. All items were rated on a 5-point scale (1 = strongly disagree and 5 = strongly agree) and subscale scores were obtained by calculating the means of the constituent items. The instrument demonstrated good internal consistency for men and women in the current sample (men $\alpha = .80-.85$; women $\alpha = .85-.87$).

Multidimensional Body-Self Relations Questionnaire—Appearance Scales (MBSRO-AS) (Cash, 2000): The MBSRO-AS includes 34 items grouped into 5 subscales, 2 of which were used in this study: Overweight Preoccupation (OWPREOC; 4 items), which assesses fat anxiety, weight vigilance, dieting, and eating restraint; and Appearance Evaluation (APPEVAL; 7 items), which measures feelings of physical attractiveness and satisfaction with one’s looks. Participants were asked to respond to each item based on the four weeks prior to the study. All items were rated on a 5-point scale (1 = definitely disagree and 5 = definitely agree), and subscales scores were determined by averaging the items of the constituent items. The instrument demonstrated good internal consistency for men and women in the current sample (men $\alpha = .77-.83$; women $\alpha = .73-.87$).

2.2.3. Romantic relationship characteristics
Relationship Assessment Scale (RAS) (Hendrick, Dicke, & Hendrick, 1998): The RAS was used to assess overall relationship satisfaction. This is a single factor scale with 7 items rated on a 5-point scale (e.g. 1 = never and 5 = very often) and averaged to obtain an overall score. The reliability of the RAS in the current sample was .88 for men and .93 for women.

Triangular Love Scale (TLS) (Lemieux & Hale, 2000): The TLS includes 20 items divided into 3 subscales: Intimacy (refers to feelings of closeness and connectedness to one’s romantic partner), Commitment (indicates one’s willingness to remain with their partner, encompasses the decision to love and maintain a potential long-term relationship, and the likelihood of seeking other partners), and Passion (consists of items associated with attraction and sexual activity and focused on the infatuation and sexual excitement associated with one’s partner). All items were assessed using a 7-point scale (1 = strongly disagree and 7 = strongly agree) and subscales scores were calculated as the means of the constituent items. The instrument demonstrated good internal consistency for men and women in the current sample (men $\alpha = .72-.94$; women $\alpha = .78-.96$).

2.3. Procedures
The study was approved by the University Institutional Review Board and data were collected using a web-based survey provider, SurveyMonkey. Participants were randomly recruited from their member site called SurveyMonkey Contribute, and those who were eligible to complete the study were provided with a link to the online survey where they first read the informed consent, provided their consent, and then moved on to the questionnaires. Participants did not receive any direct compensation from the researchers, but SurveyMonkey made a $0.50 donation to the charity of their choice along with a chance to win $100. All analyses were conducted using SPSS 22.0 and the alpha value was set to .05. Data were screened for outliers and missing data was handled using listwise deletion. Unequal group sizes were accounted for in the analyses using regression formulations (Slinker & Glantz, 1988).

3. Results
The mean and standard deviation for all study variables are presented in Table 1. Pearson’s correlation analyses were conducted between age, BMI, and body image subscales, because they are often shown to be related (Fallon, Harris, & Johnson, 2014; Green & Pritchard, 2003; McCabe & Ricciardelli, 2004; Pingitore, Spring, & Garfieldt, 1997; Tiggemann & Lynch, 2001;
Tiggemann & McCourt, 2013) (Table 2). All correlations among the body image subscales were significant for men and women. Additionally, for men and women, age was negatively correlated to self-evaluative investment and overweight preoccupation; while BMI was negatively correlated to motivational investment and appearance evaluation, and positively correlated to overweight preoccupation.

Separate multiple linear regression analyses were conducted to test if romantic involvement (involved or not-involved) predict each body image component, beyond the variance explained by age and BMI (H1). Scores on body image subscales served as dependent variables (DVs) for the regression analyses. Each analysis included two control variables in Step 1: age and BMI. Relationship categories were dummy coded and entered in Step 2 of the regressions as independent variables (IVs); single participants served as the reference group. It is important to highlight that multiple regression is a statistical technique that allows the researcher to assess the relationship between one DV and several IVs. The term regression is used when the intention is to assess the best predictor of a DV but not however to determine causation (Tabachnick & Fidell, 2007).

As shown in Table 3, single men were less motivationally invested and more dissatisfied with their overall appearance than their non-cohabiters peers. Among women, single participants
reported lower levels of self-evaluative investment than cohabiters and married women, were less motivationally invested than non-cohabiters and married participants, and were more dissatisfied with their overall appearance than their non-cohabiters peers. These results partially confirm Hypothesis 1.

Hypothesis 2 was tested by evaluating the partial correlations between the mean time uninvolved in a romantic relationship and each body image component, including age and BMI as control variables. The mean time not involved in a stable romantic relationship was 7.62 years (SD = 9.30) among men and 7.15 years (SD = 7.12) among women. For men, length of romantic non-involvement was significantly negatively correlated with self-evaluative investment ($r = -0.18; p < .01$), motivational investment ($r = -0.27; p < .001$), overweight concerns ($r = -0.16; p < .05$) and appearance evaluation ($r = -0.16; p < .05$). For women, length of romantic non-involvement was significantly negatively correlated with motivational investment ($r = -0.22; p < .05$) and overweight concerns (women: $r = -0.26; p < .01$). These results contradict Hypothesis 2 and suggest that the importance given to appearance, concerns about weight and overall body satisfaction decreased over time of non-attachment.

Separate multiple linear regression analyses were used to determine how relationship length and relationship functioning predicted each body image component, beyond the variance explained by participants’ age and BMI (H3). Scores on each body image subscale served as dependent variables. Again, each analysis included two control variables in Step 1—age and BMI. In Step 2, length of relationship and the four measures of relationship functioning were entered. Each of the significant correlates maintained sufficient tolerance (Variance Inflation Factor—VIF < 10 and tolerance > .10) to be nonredundant with the other correlates in the model (Montgomery, Peck, & Vining, 2012), thus, presented no problems with multicollinearity.
Table 3. Multiple linear regression analyses with romantic relationship status predicting body image components, controlling for age, and BMI (N = 928)

|                      | Self-evaluative investment |                      | Motivational investment |                      | Overweight preoccupation |                      | Appearance evaluation |                      |
|----------------------|-----------------------------|----------------------|--------------------------|----------------------|---------------------------|----------------------|----------------------|----------------------|
|                      | β   | t    | Sig. | β   | t    | Sig. | β   | t    | Sig. | β   | t    | Sig. | β   | t    | Sig. |
| **Men (n = 423)**    |     |      |      |     |      |      |     |      |      |     |      |      |     |      |      |
| Step 1               |     |      |      |     |      |      |     |      |      |     |      |      |     |      |      |
| Age                  | -0.27 | -5.59 | .000 | -0.05 | -1.05 | .293 | -0.17 | -3.66 | .000 | -0.05 | -1.08 | .283 |
| BMI                  | 0.04  | 0.79  | 4.30 | -0.09 | -1.87 | 0.063 | 0.29  | 6.19  | 0.000 | -0.24 | -5.01 | 0.000 |
| Step 2               |     |      |      |     |      |      |     |      |      |     |      |      |     |      |      |
| Age                  | -0.25 | -5.20 | .000 | -0.05 | -0.89 | 0.372 | -0.18 | -3.65 | .000 | -0.04 | -0.89 | .376 |
| BMI                  | 0.04  | 0.77  | 4.44 | -0.10 | -2.12 | 0.035 | 0.29  | 6.10  | 0.000 | -0.25 | -5.28 | 0.000 |
| Non-cohabiters       | 0.01  | 0.10  | 0.92 | 0.11  | 2.12  | 0.034 | 0.00  | -0.08 | 0.935 | 0.13  | 2.56  | 0.011 |
| Cohabiters           | 0.08  | 1.59  | .112 | 0.09  | 1.79  | 0.074 | 0.01  | 0.15  | 0.878 | 0.08  | 1.51  | 0.132 |
| Married              | -0.01 | -0.21 | 0.83 | 0.07  | 1.23  | 0.219 | 0.02  | 0.46  | 0.649 | 0.06  | 1.18  | 0.241 |

| F (5, 417) = 6.85*** | R² = .08; ΔR² = .01 |
|----------------------|----------------------|

Women (n = 505)

|                      | Self-evaluative investment |                      | Motivational investment |                      | Overweight preoccupation |                      | Appearance evaluation |                      |
|----------------------|-----------------------------|----------------------|--------------------------|----------------------|---------------------------|----------------------|----------------------|----------------------|
|                      | β   | t    | Sig. | β   | t    | Sig. | β   | t    | Sig. | β   | t    | Sig. | β   | t    | Sig. |
| **Step 1**           |     |      |      |     |      |      |     |      |      |     |      |      |     |      |      |
| Age                  | -0.29 | -6.68 | .000 | -0.07 | -1.55 | .121 | -0.12 | -2.80 | .005 | 0.05  | 1.17  | .244 |
| BMI                  | 0.03  | 0.75  | 4.56 | -0.08 | -1.83 | 0.068 | 0.20  | 4.57  | 0.000 | -0.34 | -8.08 | 0.000 |
| **Step 2**           |     |      |      |     |      |      |     |      |      |     |      |      |     |      |      |
| Age                  | -0.28 | -6.44 | .000 | -0.08 | -1.67 | 0.096 | -0.12 | -2.65 | 0.008 | 0.06  | 1.33  | 0.186 |
| BMI                  | 0.03  | 0.77  | 4.41 | -0.08 | -1.70 | 0.090 | 0.20  | 4.60  | 0.000 | -0.34 | -8.08 | 0.000 |
| Non-cohabiters       | 0.04  | 0.89  | 3.76 | 0.17  | 3.56  | 0.000 | 0.07  | 1.40  | 0.163 | 0.17  | 3.74  | 0.000 |
| Cohabiters           | 0.10  | 1.97  | 0.90 | 0.09  | 1.78  | 0.076 | 0.07  | 1.46  | 0.146 | 0.10  | 1.95  | 0.052 |
| Married              | 0.11  | 2.19  | 0.29 | 0.18  | 3.34  | 0.001 | 0.08  | 1.57  | 0.118 | 0.09  | 1.73  | 0.085 |

| F (5, 499) = 10.18*** | R² = .09; ΔR² = .01 |
|----------------------|----------------------|

*p > .05; **p < .01; ***p < .001.
For romantically involved men and women, the associations between relationship characteristics and body image varied somewhat between the sexes. For men, longer relationships emerged as a significant predictor of body dissatisfaction; higher relationship satisfaction significantly predicted lower self-evaluative investment and overweight preoccupation; and higher levels of passion emerged as a predictor of weight concerns and body satisfaction (Table 4). Among women, relationship functioning emerged as a significant predictor of appearance evaluation only. Contrary to our expectations, greater body dissatisfaction was predicted by longer relationships, higher levels of commitment and lower levels of intimacy and passion (Table 4). Therefore, relationship functioning seems to influence men’s body image in a wider range of components compared with women.

4. Discussion
We evaluated if the importance given to appearance (namely psychological investment in appearance), overweight concerns, and body dissatisfaction differed between men and women who were involved (or not) in a romantic relationship. Contradicting our supposition, self-evaluative investment was lower among single women compared to cohabiting and married participants. Self-evaluative investment essentially means “the extent to which individuals believe that their appearance is important to their sense of self-worth” (Cash et al., 2004, p. 312). It seems that, in our sample, appearance played a more central role in women’s lives when they were living with a romantic partner, refusing our assumption that romantic relationships might act as a barrier against dysfunctional psychological investment in appearance.

Additionally, results also demonstrated that single men were less motivationally invested than their non-cohabiting peers, and that single women reported lower motivational investment than non-cohabiting and married participants. Motivational investment reflects the extent to which individuals attend to their appearance and engage in appearance-management behaviors (e.g., spending time trying to be physically attractive) (Cash, 2003; Cash et al., 2004). If one is following a long-term mating strategy, retaining a mate is as important as attracting one, which might elucidate why non-cohabiting men and women reported the highest levels of motivational investment in appearance. Alternatively, it is known that married people in societies where divorce risks are high are more inclined to invest in their outer appearance (Lundborg et al., 2007). Thus, it is reasonable to consider that some married people—particularly those in lower quality relationships—may prepare for a potential divorce and future return to the marriage market by investing in their physical appearance. This might be especially true for middle-age people in the United States, where the divorce rates have doubled between 1990 and 2008 among persons over age 35 (Kennedy & Ruggles, 2014).

Single men and women were more dissatisfied with their overall appearance than their non-cohabiting peers. It is relevant to notice, however, that even though body dissatisfaction was higher among single participants, appearance was less important to them. In fact, it has been argued that dissatisfaction in a particular domain has an impact on one’s life to the extent that the domain is important in the person’s self-definition (Webster & Tiggemann, 2003). These results clearly demonstrate the necessity of evaluate body image as the multidimensional construct that it is.

Results also demonstrated that, although romantic relationships may enhance women’s body affirmation (Ambwani & Strauss, 2007), non-cohabitation was associated to higher motivational investment and lower body dissatisfaction for both men and women. These findings corroborate, in a certain way, the conclusions from Friedman and colleagues (1999) that simply being in a stable relationship does not protect individuals from experiencing body dissatisfaction. A potential explanation for our results relies on the dynamic of non-cohabitation among middle-aged people. At this age, a relationship without cohabitation could offer only the benefits of having a partner, buffering them against the daily problems faced by coresidential relationship. In that way, non-
Table 4. Multiple linear regression analyses with romantic functioning variables predicting body image components, while controlling for age and BMI (N = 928)

|                      | Self-evaluative investment | Motivational investment | Overweight preoccupation | Appearance evaluation |
|----------------------|---------------------------|-------------------------|--------------------------|-----------------------|
| **Men (n = 247)**    |                           |                         |                          |                       |
| Step 1               |                           |                         |                          |                       |
| Age                  | -0.32                     | -5.16                   | .000                     | -0.09                 | -1.40                 | .163                     | -0.22                 | -3.57                 | .000                     | -0.02                 | -0.36                 | .722                     |
| BMI                  | 0.00                      | 0.05                    | .962                     | 0.11                  | 1.67                  | .096                     | 0.23                  | 3.66                  | .000                     | -0.29                 | -4.66                 | .000                     |
| Step 2               |                           |                         |                          |                       |
| Age                  | -0.24                     | -3.26                   | .001                     | 0.03                  | 0.39                  | .697                     | -0.19                 | -2.56                 | .011                     | 0.14                  | 1.89                  | .060                     |
| BMI                  | 0.02                      | 0.35                    | .729                     | 0.07                  | 1.11                  | .269                     | 0.27                  | 4.30                  | .000                     | -0.26                 | -4.23                 | .000                     |
| Relationship length  | -0.07                     | -0.93                   | .354                     | 0.05                  | 0.89                  | .360                     | 0.04                  | 0.53                  | .596                     | -0.18                 | -2.48                 | .014                     |
| Relationship satisfaction | -0.41                   | -3.93                   | .000                     | 0.01                  | 0.93                  | .354                     | -0.44                 | -4.24                 | .000                     | 0.09                  | 0.84                  | .044                     |
| Intimacy             | 0.15                      | 1.15                    | .253                     | 0.02                  | 1.12                  | .266                     | -0.04                 | -0.31                 | .757                     | 0.14                  | -1.06                 | .292                     |
| Commitment           | -0.06                     | -0.51                   | .610                     | 0.12                  | 1.00                  | .319                     | 0.10                  | 0.92                  | .358                     | 0.01                  | 0.07                  | .941                     |
| Passion              | 0.16                      | 1.30                    | .195                     | 0.24                  | 1.83                  | .069                     | 0.28                  | 2.35                  | .020                     | 0.34                  | 2.88                  | .004                     |

| **Women (n = 368)**  |                           |                         |                          |                       |
| Step 1               |                           |                         |                          |                       |
| Age                  | -0.27                     | -5.16                   | .000                     | -0.08                 | -1.43                 | .155                     | -0.18                 | -3.49                 | .001                     | 0.02                  | 0.37                  | .713                     |
| BMI                  | 0.04                      | 0.70                    | .487                     | 0.13                  | 2.54                  | .011                     | 0.22                  | 4.20                  | .000                     | -0.38                 | -7.61                 | .000                     |
| Step 2               |                           |                         |                          |                       |
| Age                  | -0.31                     | -4.63                   | .000                     | 0.10                  | -1.41                 | .159                     | -0.18                 | -2.74                 | .006                     | 0.14                  | 2.24                  | .026                     |
| BMI                  | 0.03                      | 0.53                    | .598                     | 0.13*                 | 2.42                  | .016                     | 0.21                  | 4.04                  | .000                     | -0.35                 | -7.42                 | .000                     |
| Relationship length  | 0.07                      | 1.07                    | .286                     | 0.06                  | 0.84                  | .401                     | 0.01                  | 0.11                  | .915                     | -0.16                 | -2.54                 | .012                     |
| Relationship satisfaction | -0.07                   | -0.64                   | .520                     | 0.01                  | -0.15                 | .881                     | -0.07                 | -0.66                 | .509                     | 0.10                  | -1.02                 | .311                     |
| Intimacy             | -0.19                     | -1.57                   | .117                     | 0.06                  | -0.46                 | .644                     | -0.18                 | -1.48                 | .139                     | 0.23                  | 1.99                  | .048                     |
| Commitment           | 0.17                      | 1.65                    | .100                     | 0.02                  | -0.23                 | .820                     | 0.14                  | 1.40                  | .162                     | -0.19                 | -2.03                 | .043                     |
| Passion              | 0.04                      | 0.37                    | .712                     | 0.17                  | 1.62                  | .106                     | 0.02                  | 0.17                  | .862                     | 0.29                  | 3.05                  | .002                     |

F(7, 229) = 6.87***
R² = .17; ΔR² = .07
F(7, 229) = 2.23*
R² = .06; ΔR² = .04
F(7, 229) = 6.61***
R² = .17; ΔR² = .08
F(7, 229) = 8.46***
R² = .21; ΔR² = .12

F(7, 349) = 4.69***
R² = .09; ΔR² = .02
F(7, 349) = 1.92
R² = .04; ΔR² = .01
F(7, 349) = 4.86***
R² = .09; ΔR² = .02
F(7, 349) = 15.46***
R² = .24; ΔR² = .10

*p < .05; **p < .01; ***p < .001
Cohabitation could provide more space and time to experience the support produced by a romantic relationship.

Contradicting our second hypothesis, investment in appearance (both self-evaluative and motivational), overweight concerns, and satisfaction with appearance were, for men, negatively correlated to the period of time non-involved in a romantic relationship. In addition, appearance-management behaviors and overweight preoccupation decreased over time of non-attachment for women. As far as we are aware, no study investigated the role of “singleness” on body image, but our results demonstrated that, as time passes by, single people may become less preoccupied with enhancing their attractiveness. One possible explanation for this finding is that in the absence of a partner for longer periods of time, people may shift their focus to other arenas of life, valuing more their friends, family, and work. On the other hand, it is possible that individuals at this age, especially women, are single by choice (e.g. Brown & Shinohara, 2013; Fileborn, Thorpe, Hawkes, Minichiello, & Pitts, 2015); thus, appearance may become of lesser concern if they see themselves as not fully participating in the “marriage market.”

It is known that high romantic relationship quality is associated with lower body dissatisfaction for men and women (Friedman et al., 1999; Goins et al., 2012; Juarez & Pritchard, 2012). In our study, several aspects of the relationship have shown to influence one’s body image. First, relationship length emerged as a significant predictor of higher body dissatisfaction in both sexes. This result was not found by past research (Goins et al., 2012; Markey & Markey, 2006) and contradict our hypothesis, but it is possible that, as their relationships progress, individuals gradually start to receive less positive feedback about their appearance from their partners, which could result in increased body dissatisfaction (Markey & Markey, 2006). Second, relationship satisfaction predicted lower self-evaluative investment and overweight preoccupation, but only for men. Because studies have shown that successful intimate relationships may provide women with a psychological buffer against societal pressures to attain a slim appearance (e.g. Boyes et al., 2007), we expected to find the same for women. Third, body satisfaction was predicted by intimacy in women, suggesting that feelings of closeness and connectedness increase positive aspects of body image. Fourth, commitment emerged as a predictor of body dissatisfaction in women. This result was unexpected. We hypothesized that individuals in a highly committed relationship would present lower body dissatisfaction because commitment can be seen as a form of acceptance. Lastly, passion predicted body satisfaction in both sexes. This result was anticipated because aspects related to attraction and sexual activity is an indicative of a person’s desirability, likely favoring one’s body image. Taken together, these findings suggest that some characteristics of romantic relationships are indeed tied to a more favorable body image, while others seem to be detrimental.

4.1. Limitations

Although this study expands on the existing literature in a number of ways, it also has important limitations. First, our sample was composed primarily of white, heterosexual, married, and overweight or obese individuals. Thus, precautions must be taken regarding the generalization of the results. Second, given that this was a cross-sectional study, causality and relationship direction cannot be ascertained. Finally, we did not investigate propensity to enter long-term relationships in individuals who were single, which could exacerbate appearance worries. Furthermore, it is important to highlight that body image is influenced by a number of variables not taken into account in the present study; therefore, intimate relationships might be though as part of the puzzle. Moreover, relationship status might interact with other variables such as thin-ideal internalization (Ramirez, Perez, & Taylor, 2012), self-objectification (Sanchez & Broccoli, 2008), or even self-esteem that may come as a result of both positive and negative aspects of relationships.
5. Conclusion

With research suggesting that negative body image is associated with poor psychosocial functioning (Cash et al., 2004), the investigation of factors that might influence appearance-related issues is essential for establishing and improving intervention strategies. The present study extended prior research by evaluating several components of body image, including more intimate relationship categories, and exploring measures of relationship quality that have not yet been investigated in the context of body image research. Our results demonstrated that intimate relationship is an important influence on one’s body image and, therefore, should be taken into account in the design and implementation of education and intervention efforts that address the development of a more positive body image and decreased weight concerns.

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Competing interest

No conflicts of interests were declared.

Author details

Maria Fernanda Laus1,2
E-mail: ferlaus@gmail.com
Sebastião S. Almeida1
E-mail: sebasalms@usp.br
Lori A. Klos3
E-mail: iklos@uwm.edu

1 Department of Psychology, Faculty of Philosophy, Sciences, and Letters of Ribeirão Preto, University of São Paulo, Ribeirão Preto, SP, Brazil.
2 Department of Kinesiology, College of Health Sciences, University of Wisconsin-Milwaukee, 455 Enderis Hall, Milwaukee, WI 53201, United States.

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