HHS Public Access

Author manuscript

Body Image. Author manuscript; available in PMC 2017 September 01.

Published in final edited form as:

Body Image. 2016 September ; 18: 113–122. doi:10.1016/j.bodyim.2016.06.006.

Mediators of the Relationship Between Thin-Ideal Internalization and Body Dissatisfaction in the Natural Environment

Ellen E. Fitzsimmons-Craft[a,*], **Anna M. Bardone-Cone**[b], **Ross D. Crosby**[c], **Scott G. Engel**[c], **Stephen A. Wonderlich**[c], and **Cynthia M. Bulik**[d]

[a]Washington University School of Medicine

[b]University of North Carolina at Chapel Hill

[c]Neuropsychiatric Research Institute and University of North Dakota School of Medicine & Health Sciences

[d]University of North Carolina at Chapel Hill and Karolinska Institutet

Abstract

Social comparisons (i.e., body, eating, exercise) and body surveillance were tested as mediators of the thin-ideal internalization-body dissatisfaction relationship using ecological momentary assessment (EMA). Participants were 232 college women who completed a 2-week EMA protocol, responding to questions three times per day. Multilevel path analysis was used to examine a 2-1-1 mediation model (thin-ideal internalization assessed as trait; between-person effects examined) and a 1-1-1 model (component of thin-ideal internalization [thin-ideal importance] assessed momentarily; within- and between-person effects examined). For the 2-1-1 model, only body comparison and body surveillance were significant specific mediators of the between-person effect. For the 1-1-1 model, all four variables were significant specific mediators of the within-person effect. Only body comparison was a significant specific mediator of the between-person effect. At the state level, many processes explain the thin-ideal internalization-body dissatisfaction relationship. However, at the trait level, body comparison and body surveillance are more important explanatory factors.

Department of Psychiatry, Washington University School of Medicine, Department of Psychiatry, Campus Box 8134, 660 S. Euclid Ave., St. Louis, MO 63110. fitzsimmonscrafte@psychiatry.wustl.edu.

1. Author Note

Ellen E. Fitzsimmons-Craft, Department of Psychiatry, Washington University School of Medicine; Anna M. Bardone-Cone, Department of Psychology and Neuroscience, University of North Carolina at Chapel Hill; Ross D. Crosby, Neuropsychiatric Research Institute and Department of Clinical Neuroscience, University of North Dakota School of Medicine & Health Sciences; Scott G. Engel, Neuropsychiatric Research Institute and Department of Clinical Neuroscience, University of North Dakota School of Medicine & Health Sciences; Stephen A. Wonderlich, Neuropsychiatric Research Institute and Department of Clinical Neuroscience, University of North Dakota School of Medicine & Health Sciences; Cynthia M. Bulik, Departments of Psychiatry and Nutrition, University of North Carolina at Chapel Hill and Department of Medical Epidemiology and Biostatistics, Karolinska Institutet.

Keywords

Thin-ideal internalization; Body dissatisfaction; Social comparison; Objectification; Body surveillance; Ecological momentary assessment

Thin-ideal internalization refers to the extent to which an individual "buys into" societal ideals of attractiveness (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999; Thompson & Stice, 2001). The weight of idealized women in the media is extremely low (e.g., Byrd-Bredbenner, Murray, & Schlussel, 2005; Sypeck et al., 2006; Wiseman, Gray, Mosimann, & Ahrens, 1992), and coupled with these thin-ideal images comes the message that individuals who are thin are the most valued, loved, and successful (Hesse-Biber, Leavy, Quinn, & Zoino, 2006). Western culture has supported the notion that the extremely thin look is both desirable and achievable, when in fact, this ideal is very difficult for most women to achieve and maintain (Brownell, 1991).

The internalization of these societal ideals of attractiveness may be associated with negative effects, such as body dissatisfaction. Given the impossibility of the thin-ideal standard, many women may perceive they have been unable to attain this ideal and feel badly about their own appearance. Indeed, both cross-sectional and prospective studies have demonstrated links between thin-ideal internalization and body dissatisfaction (e.g., Fitzsimmons-Craft et al., 2012, 2014; Keery, van den Berg, & Thompson, 2004; Shroff & Thompson, 2006; Stice & Whitenton, 2002).

Research has begun to explore factors that may translate internalization of the thin ideal into body dissatisfaction, namely social comparison and body surveillance, constructs derived from established theoretical frameworks. Festinger's (1954) social comparison theory put forth that humans engage in social comparison with others to understand how and where they fit into the world, and the Tripartite Influence Model (van den Berg, Thompson, Obremski-Brandon, & Coovert, 2002) suggested a role for social comparison in body image disturbance. This theory posited that comparing oneself to others may explain the relation between sociocultural influence from peers, family, and media and body dissatisfaction. Likewise, objectification theory holds that in Western culture, the female body has been constructed as an object to be looked at (Fredrickson & Roberts, 1997; McKinley & Hyde, 1996). As a result, females learn to view themselves from an observer's perspective and treat themselves as objects to be looked at. This self-objectification is thought to behaviorally manifest as body surveillance (Moradi & Huang, 2008), involving thinking about how one's body looks to an observer and thinking more about how one's body looks than how it feels.

More recently, the elaborated sociocultural model of disordered eating (Fitzsimmons-Craft, 2011) integrated social comparison and objectification theories, positing that both theoretical constructs may help explain the relationship between thin-ideal internalization and body dissatisfaction. It may be that via both social comparison and body surveillance, individuals evaluate their proximity to the ideal and feel badly about their bodies—social comparison provides for direct comparison and body surveillance is the monitoring piece that may kick off the evaluation process. Fitzsimmons-Craft et al. (2014) tested the elaborated sociocultural model using cross-sectional, traditional self-report data, finding that eating

disorder-related social comparison (a construct including body, eating, and exercise comparison dimensions) mediated the thin-ideal internalization-body dissatisfaction relationship in a sample of college women. These findings highlight the importance of focusing on the range of social comparison domains (i.e., body, eating, exercise) that may stem from thin-ideal internalization and be associated with body image disturbance. Indeed, Fitzsimmons-Craft et al. (2012) found that neither general nor appearance-related social comparison tendencies mediated the relationship between thin-ideal internalization and body dissatisfaction in a cross-sectional study of college women, hypothesizing that general measures of social comparison may be too general and that appearance-related measures may be too narrow for comprehensively capturing the types of comparison that translate internalization of the thin ideal into dissatisfaction with the body. Although both body surveillance and self-objectification have been found to mediate the thin-ideal internalization-body dissatisfaction relationship in cross-sectional studies of college women (Fitzsimmons-Craft et al., 2012; Myers & Crowther, 2007), body surveillance did not emerge as a significant mediator in the context of the elaborated sociocultural model (Fitzsimmons-Craft et al., 2014). The authors hypothesized that social comparison may be a more “potent” mediator relative to body surveillance, as it may provide a woman with a more direct means of assessing how she measures up to others.

Although there is some evidence that body, eating, and exercise comparisons and body surveillance may mediate the relationship between thin-ideal internalization and body dissatisfaction, and both have been concurrently investigated as mediators of this relationship (Fitzsimmons-Craft et al., 2014), previous research has been limited in two major ways. First, past work has been conducted in settings that lack ecological validity (e.g., laboratory). This is problematic given that data generated in such settings may not be generalizable to individuals’ lived experiences in the real world (Shiffman, Stone, & Hufford, 2008). Second, previous studies have used measurement strategies that rely heavily on retrospective recall, which is a shortcoming because human memory can be unreliable (Shiffman et al., 2008). Ecological momentary assessment (EMA) circumvents these issues and involves assessing participants multiple times per day in their natural environments. EMA has ecological validity because data are collected in the natural environment and reduced retrospective recall biases because participants are asked to report on only very recent experiences (Smyth et al., 2001). To our knowledge, research has yet to use this methodology to examine mediators of the thin-ideal internalization-body dissatisfaction relation; however, previous research using these data has established that comparing one’s body, eating, or exercise to others or engaging in body surveillance is associated with body dissatisfaction in the same short-term assessment period (Fitzsimmons-Craft et al., 2015).

The purpose of the current study was thus to use EMA to understand the mechanisms by which thin-ideal internalization is associated with body dissatisfaction in a more momentary fashion. We hypothesized that momentary engagement in body, eating, and exercise social comparisons and body surveillance would mediate the relation between trait thin-ideal internalization and momentary body dissatisfaction. Given that thin-ideal internalization has typically been conceptualized as “trait-like” in the literature (e.g., Colautti et al., 2011; Suisman et al., 2012), we were interested in how the hypothesized mediation model would hold when thin-ideal internalization was assessed at the trait level. However, we were also

interested in testing this assumption (i.e., that thin-ideal internalization is a stable, trait-like construct), as some work has argued for state-like components for this construct and that it can be influenced by contextual factors (Karazsia, van Dulmen, Wong, & Crowther, 2013). We thus examined whether a component of thin-ideal internalization—thin-ideal importance—varied moment-to-moment. Notably, a participant's lack of endorsement for momentary thin-ideal importance could suggest: (1) that their level of thin-ideal internalization was fluctuating and they were downgrading its significance; or (2) that they were not thinking about physical appearance at the time of the assessment. As such, in order to test whether this construct may be suggestive of a state component for thin-ideal internalization, we tested whether thin-ideal importance was associated with momentary body dissatisfaction even after controlling for amount of time spent thinking about appearance. Finally, we tested whether our mediational model would hold when using this indicator of momentary thin-ideal internalization as the independent variable.

1. Method

1.1. Participants

Participants were 235 women attending a large, public Southeastern university who were recruited through introductory psychology courses. This study was part of a larger study on psychosocial predictors of college women's body image and disordered eating (Fitzsimmons-Craft et al., 2014). At the initial study assessment, participants ranged in age from 17 to 22 years, with a mean age of 18.70 years (SD = 1.00). Most women (68.9%) identified as White, 7.7% as African American or Black, 7.7% as Asian, 4.3% as Hispanic, 1.3% as American Indian or Alaskan Native, 9.8% as multiracial/multiethnic, and 0.4% as other races/ethnicities. Highest parental education was used as a proxy for socioeconomic status and ranged from 7 to 21 years (M = 16.50, SD = 2.68). Body mass index (BMI) was calculated from self-reported height and weight and ranged from 16.13 to 41.60 kg/m^2 (M = 22.56, SD = 3.43).

1.1. Procedure

First, participants attended a study orientation session at the beginning of an academic semester which informed them about study procedures, EMA reporting procedures, and behaviors (providing definitions and examples) participants would track during the EMA component of the study (e.g., body comparison: "comparing your body/some aspect of your body to a same-sex peer."). Participants were provided with a short manual containing the information discussed at the orientation.

Second, participants completed an online self-report questionnaire battery (beginning of semester, Time 1 [T1]) within several days of this orientation session. Questionnaire completion occurred online in private locations of the participants' choosing (e.g., their homes) and took about one hour to complete. Informed consent was obtained electronically at T1.

Third, participants completed a 2-week EMA protocol about 1-1.5 months after the T1 assessment (i.e., at about mid-semester). Participants used their personal mobile devices

(e.g., laptop, tablet, smartphone, or some combination) to answer questions three times per day: late morning (10:30 am-1:30 pm), late afternoon (3:30 pm-6:30 pm), and before going to sleep (10:00 pm-1:00 am). Participants were provided with these times as guidelines but also received reminder emails with the survey link (i.e., signals for reporting) at the beginning of each time period across the EMA period. Participants received reminder text messages for the first three days of data collection as well (except for one participant who opted out). The majority of past research has indicated that EMA reactivity is at most a minimal concern in body dissatisfaction and eating disorder research (Crosby et al., 2009; Heron & Smyth, 2013; Leahey, Crowther, & Mickelson, 2007; Stein & Corte, 2003), although Fuller-Tyszkiewicz et al. (2013) found some evidence of declines in data quantity and quality over time. Furthermore, participant burden is not excessive (Smyth et al., 2001; Wegner et al., 2002) and collecting EMA data via personal computers is feasible with good compliance rates among college students (Zuckerman & O'Loughlin, 2006). Compliance is improved with participant-management procedures, such as training, feedback, and check-ins (Shiffman, 2009), and thus, research assistants contacted participants at least three times per week (once via phone and twice via email) to check in and address problems. Participants were also contacted by phone and email on any day after they failed to complete a bedtime report to request that they complete all reports for that day.

Participants were provided with research credit in their introductory psychology courses for participating in this study. They received full research credit if they adequately completed all components of the larger study, including filling out the EMA question sets at least 30 of the possible 42 times. (Credit was prorated if they responded less frequently or did not complete all study components.) Participants were also entered into a drawing for one of six $100 prizes if they completed all study components and at least 36 (85%) of the EMA question sets. This study was reviewed and approved by the university's Institutional Review Board.

1.1. Traditional Self-Report Measure at Time 1 (T1)

Thin-ideal internalization—Thin-ideal internalization was measured via the Internalization-Thin/Low Body Fat subscale of the Sociocultural Attitudes Toward Appearance Questionnaire-4 (SATAQ-4; Schaefer et al., 2015), which assesses endorsement and acceptance of messages that espouse unrealistic ideals for female beauty and the striving toward such ideals. This subscale consists of five items that are rated on a 1 (*definitely disagree*) to 5 (*definitely agree*) scale, and items are summed to create a total score. Evidence of good construct validity has been demonstrated (e.g., relatively high correlation with a measure of eating disorder pathology; Schaefer et al., 2015), and high internal consistency was found in a large sample of women (alphas of .82−.91; Schaefer et al., 2015). In the current study, alpha was .83 at T1.

1.1. Ecological Momentary Assessment (EMA) Measures

Measures were chosen to maximize reliability and validity yet minimize participant burden.

Thin-ideal importance—Thin-ideal importance was assessed via the following question: "Since the last time you were signaled, how important has it been to you to be thin?" This

item was rated on a 1 (*not at all*) to 5 (*extremely*) scale. To our knowledge, this is the first EMA study to assess this construct or any aspect of thin-ideal internalization.

Social comparison—Social comparison frequencies were assessed using visual analogue scales. In particular, body-related social comparison was assessed using the following question: "Please slide the bar to indicate the level of BODY comparison behavior you have engaged in since the last time you were signaled, where 0 = *No Body Comparisons* and 100 = *Constantly Making Body Comparisons*." Parallel questions assessing level of eating- and exercise-related social comparison behavior were administered as well. Previous naturalistic work on social comparison has often used single items (Leahey et al., 2007; Myers, Ridolfi, Crowther, & Ciesla, 2012). One-item visual analogue scales are brief, easy to administer, and demonstrate sensitivity to short-term change both generally and when used for assessing body image (Heinberg & Thompson, 1995; Mabe, Forney, & Keel, 2014; McCormack, Horne, & Sheather, 1988).

Body surveillance—To assess body surveillance, the 8-item Body Surveillance subscale of McKinley and Hyde's (1996) Objectified Body Consciousness Scale (OBCS) was modified to be more momentary, similar to the approach of Breines et al. (2008). In particular, participants were asked to "please think about the period of time since the last time [they] were signaled in answering the following questions." An example item is: "I thought about how I looked many times." In order to minimize issues related to construct overlap, the one comparison-related item (i.e., "I rarely compare how I look with how other people look") was not included when computing the subscale score. All analyses were run using the 7-item version of the more momentary OBCS Body Surveillance subscale, with response options ranging from 1 = *strongly disagree* to 7 = *strongly agree*. The traditional self-report version of the OBCS Body Surveillance subscale has demonstrated reliability and validity in a sample of college women (McKinley & Hyde, 1996). In the current study, alpha was .89 at the within-person level and .97 at the between-person level (Geldhof, Preacher, & Zyphur, 2014).

Body dissatisfaction—Body dissatisfaction was assessed using visual analogue scales. In particular, weight dissatisfaction was assessed using the following question: "Please slide the bar to indicate how dissatisfied with your WEIGHT you have been since the last time you were signaled, where 0 = *Not at All Dissatisfied* and 100 = *Very Dissatisfied*." A parallel question assessing level of shape dissatisfaction was administered as well. The average of these two items was used as a measure of body dissatisfaction. Previous naturalistic work supports the use of single items to assess body dissatisfaction (Durkin, Paxton, & Sorbello, 2007). In the current study, alpha was .80 at the within-person level and .92 at the between-person level (Geldhof et al., 2014).

1.1. Analytic Strategy

Multilevel path analysis was used to test the main study hypotheses (Preacher, Zyphur, & Zhang, 2010). Benefits of using this framework include: (1) ability to separate within- and between-person mediated effects; (2) use of robust maximum likelihood estimation, which accommodates missing data and unbalanced clusters (i.e., number of observations for each

person); (3) no assumption of normality; and (4) generation of robust estimates of asymptotic covariances of parameter estimates (Preacher et al., 2010).

First, we examined an upper-level mediation model (i.e., a 2-1-1 mediation model) (Kenny, Kashy, & Bolger, 1998; Krull & MacKinnon, 1999), in which we investigated whether momentary instances of body, eating, and exercise comparisons and body surveillance mediated the relation between trait thin-ideal internalization and momentary body dissatisfaction. Thus, thin-ideal internalization was conceptualized as a trait assessed at Level 2 (and came from the T1 traditional self-report data), and social comparison, body surveillance, and body dissatisfaction were assessed in a more momentary fashion at Level 1. In a 2-1-1 mediation model, because the independent variable is constant for a given person, it cannot influence within-person variation (Hoffman, 2002; Preacher et al., 2010). As such, any mediation of the effect of a Level 2 independent variable must also occur at the between-person level, regardless of the level at which the mediators and dependent variable are assessed. Thus, for the 2-1-1 model, we were interested in whether the trait-like components of body, eating, and exercise comparison and body surveillance served as mediators of the effect of trait thin-ideal internalization on the trait-like component of body dissatisfaction.

Second, we examined a lower-level mediation model (i.e., a 1-1-1 mediation model), in which we investigated whether momentary instances of body, eating, and exercise comparisons and body surveillance mediated the relation between momentary levels of thin-ideal internalization and body dissatisfaction. Given that all of the constructs in our model were assessed at Level 1 (and thus contained both within- and between-person variance), it was possible to examine whether the relationship between thin-ideal internalization and body dissatisfaction was mediated by social comparisons and body surveillance at both the within- and between-person levels—at the state- and trait-like levels. Mplus Version 6.1 (Muthén & Muthén, 2010) was used to run these analyses.

Before examining the study models, first, it was important to investigate the intraclass correlations (ICC) for body dissatisfaction and the momentarily assessed component of thin-ideal internalization, thin-ideal importance. The ICC represents the proportion of between-person variance relative to total variance for a given variable. If the ICC is close to or equal to one, then all differences in the construct are between-person differences and all reports of the construct that an individual makes are nearly identical. For the 2-1-1 model, we investigated the ICC for body dissatisfaction to determine whether there was a substantial amount of between-person variance in the construct, which would provide support for the idea of investigating an upper-level mediation model and between-person mediational effects. For the 1-1-1 model, we investigated the ICC for thin-ideal importance to determine whether there was a substantial amount of within-person variance in the construct, which would provide support for the idea of investigating a lower-level mediation model and both within- and between-person mediational effects. If the ICC for thin-ideal importance is close to or equal to one, then all differences in this construct are at the between-person level and all reports of this construct that an individual makes are nearly identical. However, if results reveal that the ICC for thin-ideal importance is lower than one and that this construct varies at least somewhat on a moment-to-moment basis, then examining a lower-level mediation

model would be informative. Next, we used multilevel modeling to examine the effect of momentary thin-ideal importance on momentary body dissatisfaction, controlling for amount of time spent thinking about appearance over the same short-term assessment period (item from the Body Surveillance subscale of the OBCS). Both the person-mean centered levels of these predictors (which represent the tests of the within-person effects) and the individuals' mean levels of the predictors (which represent the tests of the between-person effects) were entered into the models.

1. Results

1.1. Descriptive Analyses

Participants provided 8,813 separate EMA recordings. Overall compliance with completing EMA surveys was high at 89.3% (about 38 out of 42 surveys). Further, 97% of participants completed 70% or more of the surveys, and 78% completed 85% or more of the surveys. Participants' timeliness was also good, with 73.8% of reports completed within the time guidelines provided. We examined z scores in order to determine whether there were any outliers with respect to number of surveys completed. Three participants completed 21, 24, and 26 surveys ($z \geq -3.0$); all other participants completed 28 or more surveys. Data from these three participants were excluded from all analyses involving the EMA data, leaving an n of 232 participants with EMA data.

Grand means for person-level means (i.e., individuals' mean levels of a given construct over the 2-week EMA period) of the EMA variables are provided in Table 1. The mean SATAQ-4 Internalization-Thin/Low Body Fat subscale score at Time 1 was 17.40 ($SD = 4.78$).

1.1. Multilevel Path Analyses

2-1-1 model—Results showed that the ICC for the outcome variable, body dissatisfaction, was .75 (see Table 2), indicating that 75% of the variance in body dissatisfaction was attributable to between-person differences, providing support for the idea of investigating a 2-1-1 mediation model and between-person mediational effects.

We specified random intercepts and fixed slopes for 2-1-1 model. Results indicated that the total between-person indirect effect of thin-ideal internalization on body dissatisfaction through the set of mediators was significant, with an unstandardized point estimate of 1.45 ($p < .001$). Thus, as a set, the trait-like components of body, eating, and exercise comparisons and and body surveillance partially mediated the relation between trait thin-ideal internalization and the trait-like component of body dissatisfaction. The specific between-person indirect effects of each mediator showed that body-related social comparison (unstandardized point estimate = 1.27, $p < .001$) and body surveillance (unstandardized point estimate = .28, $p = .039$) were unique and significant mediators. Eating-related social comparison (unstandardized point estimate = −.24, $p = .341$) and exercise-related social comparison (unstandardized point estimate = .15, $p = .291$) did not add significantly to the model. Contrasts revealed that the between-person indirect effect of body-related social comparison in the thin-ideal internalization-body dissatisfaction relation was significantly stronger than the indirect effects of eating-related social comparison ($p = .$

003), exercise-related social comparison (p = .001), and body surveillance (p = .006). Results further revealed that the between-person indirect effect of body surveillance in the thin-ideal internalization-body dissatisfaction relation was not significantly stronger than the indirect effects of eating-related social comparison (p = .078) or exercise-related social comparison (p = .462). Additionally, the non-significant indirect effects of eating- and exercise-related social comparison were similar in size (p = .280), and the between-person direct effect of thin-ideal internalization on body dissatisfaction was significant (B = .83, p = .006). See Figure 1 for the full 2-1-1 mediation model. As can be seen in Figure 1, results also indicated that there were significant within-person effects of body, eating, and exercise comparisons and body surveillance on body dissatisfaction.

1-1-1 model—First, results showed that the ICC for the independent variable, thin-ideal importance, was .66 (see Table 2), indicating that 66% of the variance in thin-ideal importance, as assessed during the EMA period, was attributable to between-person differences. Thus, about 34% of the variance in this construct was due to within-person differences, providing support for the idea of investigating a 1-1-1 mediation model and both within- and between-person mediational effects. Second, we found that over and above the influence of simply thinking about appearance, which was significant at both the within- (B = 1.77, t(8069.26) = 16.91, p < .001) and between-person (B = 3.75, t(231.03) = 3.15, p = .002) levels, thin-ideal importance predicted body dissatisfaction at both the within- (B = 5.85, t(8068.49) = 29.96, p < .001) and between-person (B = 12.81, t(231.24) = 9.59, p < .001) levels.

We specified random intercepts and fixed slopes for 1-1-1 model. Results indicated that the total within-person indirect effect of thin-ideal importance on body dissatisfaction through the set of mediators was significant, with an unstandardized point estimate of 1.89 (p < .001). Thus, as a set, the state-like components of body, eating, and exercise comparisons and body surveillance partially mediated the relation between the state-like components of thin-ideal importance and body dissatisfaction. The specific within-person indirect effects of each mediator showed that all four were significant; thus, body-related social comparison (unstandardized point estimate = .75, p < .001), eating-related social comparison (unstandardized point estimate = .38, p < .001), exercise-related social comparison (unstandardized point estimate = .22, p < .001), and body surveillance (unstandardized point estimate = .54, p < .001) were unique and significant mediators at the within-person level. Contrasts revealed that the within-person indirect effect of body-related social comparison in the thin-ideal importance-body dissatisfaction relation was significantly stronger than the indirect effects of eating-related social comparison (p = .004) and exercise-related social comparison (p < .001) and that the within-person indirect effect of body surveillance was significantly stronger than the indirect effect of exercise-related social comparison (p = .008). Otherwise, the sizes of the indirect effects were not significantly different from one another (ps > .05). Additionally, the within-person direct effect of thin-ideal importance on body dissatisfaction was significant (B = 4.78, p < .001).

Regarding the between-person effects in this model, results indicated that the total between-person indirect effect of thin-ideal importance on body dissatisfaction through the set of mediators was significant, with an unstandardized point estimate of 5.34 (p < .001). Thus, as

a set, the trait-like components of body, eating, and exercise comparisons and body surveillance partially mediated the relation between the trait-like components of thin-ideal importance and body dissatisfaction. The specific between-person indirect effects of each mediator showed that body-related social comparison (unstandardized point estimate = 5.22, $p < .001$) was a unique and significant mediator. Results indicated that eating-related social comparison (unstandardized point estimate = −.44, $p = .709$), exercise-related social comparison (unstandardized point estimate = .47, $p = .462$), and body surveillance (point estimate = .09, $p = .890$) did not add significantly to the model. Contrasts revealed that the between-person indirect effect of body-related social comparison in the thin-ideal importance-body dissatisfaction relation was significantly stronger than the indirect effects of eating-related social comparison ($p = .016$), exercise-related social comparison ($p = .002$), and body surveillance ($p = .002$). Otherwise, the sizes of the indirect effects were not significantly different from one another (ps > .05). Additionally, the between-person direct effect of thin-ideal importance on body dissatisfaction was significant (B = 9.93, $p < .001$). See Figure 2 for the full 1-1-1 mediation model.1

1. Discussion

The current study extended research on the mediating roles of social comparison and body surveillance in the relationship between thin-ideal internalization and body dissatisfaction by using EMA. First, we were interested in whether momentary reports of body, eating, and exercise social comparisons and body surveillance mediated the relationship between trait thin-ideal internalization and momentary body dissatisfaction. Results suggest that individuals with higher levels of trait thin-ideal internalization engage in more body dissatisfaction on average and that this association is at least partially explained by individuals' average levels of body-related social comparisons and body surveillance, more so than eating or exercise comparisons. It may be that general tendencies to engage in high levels of body comparisons and body surveillance are especially powerful mediators because such processes provide individuals with a rather direct understanding of their proximity to the thin ideal, whereas eating and exercise comparisons focus more on the actions associated with achieving the appearance ideal and may not provide as direct of a link between trait-like thin-ideal internalization and body dissatisfaction.

As an extension of these findings, we were also interested in examining our mediational model using an indicator of momentary thin-ideal internalization, thin-ideal importance, as the independent variable. Thin-ideal internalization has generally been described as "trait-like" in the literature (e.g., Colautti et al., 2011; Suisman et al., 2012), but we found there was moment-to-moment variability in individuals' reports of one aspect of this construct, thin-ideal importance. Furthermore, results indicated that momentary thin-ideal importance was associated with momentary body dissatisfaction, above and beyond the influence of simply thinking about appearance, providing further justification for the existence of a state-based component of internalization. These findings thus challenge the notion that thin-ideal

[1]Given the influence of BMI on body dissatisfaction (e.g., Yates, Edman, & Aruguete, 2004), the study models were rerun controlling for the between-person effect of BMI on the between-person component of the outcome variable, body dissatisfaction. The pattern of results was identical to that obtained when not including BMI, with the exception that in the 2-1-1 model, the specific indirect of effect of body surveillance went from significant ($p = .039$) to just beyond the threshold for significance ($p = .052$).

internalization is a static construct (e.g., Colautti et al., 2011; Suisman et al., 2012). Rather and in line with Karazsia et al. (2013), it appears that thin-ideal internalization can be at least somewhat activated or downplayed in the moment, likely due to contextual factors (e.g., attention paid to thin-ideal stimuli; Brown & Dittmar, 2005), which should be explored further in future studies. Additionally, future research should explore whether the actual ideal that individuals aspire towards (e.g., very thin ideal vs. athletic ideal) varies moment to moment.

Given that all of the constructs in this model were assessed momentarily, it was possible to examine whether mediation occurred at not only the more trait-like level but also at the more state-like level. Our results showed that the total within-person indirect effect of thin-ideal importance on body dissatisfaction through the set of mediators was significant, and the specific within-person indirect effects showed that all four were significant. Thus, momentary thin-ideal importance was associated with momentary body dissatisfaction, and this relation was mediated by momentary body, eating, and exercise social comparisons and body surveillance. These results provide additional support for the notion that, in the moment, many appearance-related processes are associated with body dissatisfaction and perhaps involved in its maintenance on a day-to-day basis (Fitzsimmons-Craft et al., 2015), and further, that, in the moment, these various processes (i.e., body, eating, and exercise comparisons, body surveillance) translate feelings of thin-ideal importance into feeling badly about the body.

Regarding the between-person effects in this model, only body-related social comparison emerged as a significant specific mediator at the trait-like level. It is interesting that body surveillance emerged as a significant specific mediator when thin-ideal internalization was measured using a traditional self-report questionnaire but not when an aspect of thin-ideal internalization was measured via EMA. Body surveillance also did not emerge as a significant specific mediator of the thin-ideal internalization-body dissatisfaction relation in the context of an elaborated sociocultural model of disordered eating that was examined using traditional self-report questionnaires in Fitzsimmons-Craft et al. (2014). Thus, across analyses, results suggest that, in relation to social comparison (especially body comparison), body surveillance may not be as powerful a mechanism to explain how thin-ideal internalization translates itself into dissatisfaction with the body at the trait level. At the trait or general level, it may be that body comparisons provide individuals with the most direct understanding that their bodies are not where they would like them to be. The notion that social comparison emerged as a stronger mediator at the trait level may be in line with theoretical history, in the sense that the Tripartite Influence Model explicitly hypothesized a meditational role for social comparison and not body surveillance.

Importantly, it may be that social comparisons and body surveillance make women realize that there is a discrepancy between their ideal and actual bodies and thus experience body dissatisfaction. However, future research should explicitly assess the weight, shape, eating, and exercise associated with individuals' ideal and actual bodies, the discrepancies between individuals' ideal and actual bodies, and whether social comparisons and body surveillance account for these relationships.

The current study contributes to the existing literature by using EMA to explore mediators of the relationship between thin-ideal internalization and body dissatisfaction. Using EMA represents a major strength given that this assessment strategy generates data on behaviors as they occur in the natural environment. Furthermore, EMA has reduced retrospective biases and allows for a large number of observations of the constructs of interest. Other strengths of this study include the comprehensive assessment of eating disorder-related social comparison domains, including body, eating, and exercise comparisons, and the investigation of whether thin-ideal internalization has a state-like component. Finally, the use of multilevel modeling is a strength, as this analytic strategy does not produce conflated estimates of within-and between-person indirect effects (Preacher et al., 2010).

Relative to other EMA studies, one limitation is that participants were asked to fill out EMA surveys three times per day during certain windows of time and answer questions about the past several hours, as opposed to being randomly signaled to complete surveys. Future research would benefit from the use of random signals and questions about the current moment, which would provide even more momentary data and decrease the influence of retrospective recall biases even further. An additional limitation is the fact that participants endorsed relatively low grand means for social comparisons and body dissatisfaction, which may have been due to the use of visual analogue scales ranging from 0 to 100. These floor effects could have decreased power or attenuated relationships between the study variables. Finally, we assessed overall frequencies of social comparisons without consideration of direction or target. Upward comparisons occur when an individual compares herself to someone she perceives to be “better off,” while downward comparisons occur when an individual compares herself to someone she perceives to be “worse off” (Myers & Crowther, 2009). Some work suggests that upward comparisons may be associated with more negative outcomes than downward comparisons (Leahey et al., 2007), but importantly, college women engage in upward comparisons more frequently than downward comparisons (Leahey et al., 2007; Leahey, Crowther, & Ciesla, 2011; Leahey & Crowther, 2008; O’Brien et al., 2009). While the current study did not assess comparison direction, based on past work, the majority of comparisons participants reported were likely in the upward direction. Future research may also benefit from assessment of comparison targets (e.g., figure in real life or image online) and whether comparison with certain types of targets more strongly explains the relationship between thin-ideal internalization and body dissatisfaction.

In terms of clinical implications, results highlight the importance of not only addressing the common targets of thin-ideal internalization and body image in eating disorder prevention and intervention efforts (Ciao, Loth, & Neumark-Sztainer, 2014; Fairburn, 2008) but also attending to social comparisons and body surveillance as these processes may translate internalization of the thin ideal into dissatisfaction with the body. At a more trait-like, general level, body comparisons and body surveillance should be viewed as primary targets for stopping this translation. In contrast, to stop this link in the moment, many different behaviors should be targeted (i.e., body, eating, and exercise comparisons, body surveillance). Regarding social comparison, clinicians could teach individuals to identify thinking errors apparent in their social comparison-related thoughts (e.g., black-and-white thinking) and challenge these distorted ways of thinking. Behavioral experiments, such as comparing to non-appearance-related aspects of others or becoming more scientific about

comparing (e.g., comparing to every fifth person one sees rather than every very thin person), could be used to help individuals become aware of how their thoughts and emotions were to change if they altered their comparison behavior. In terms of reducing body surveillance, clinicians could work with individuals to focus on what their bodies can do more so than what they look like.

In sum, at the trait level, general tendencies to engage in body comparisons and body surveillance are important explanatory mechanisms of the relationship between thin-ideal internalization and body dissatisfaction, with body comparisons emerging as the strongest mediating variable. However, in the moment, many processes (i.e., body, eating, and exercise comparisons, body surveillance) appear to mediate this relationship. Clinicians should work on disrupting these links with their clients, being aware of the different constructs that are important at the trait vs. state levels.

Acknowledgments

This research is based on the doctoral dissertation of Ellen Fitzsimmons-Craft under the direction of Anna Bardone-Cone and was conducted at the University of North Carolina at Chapel Hill. This research was supported by the following grants: F31 MH093978 from the National Institute of Mental Health; T32 HL007456 from the National Heart, Lung, and Blood Institute; University of North Carolina at Chapel Hill Department of Psychology Earl and Barbara Baughman Dissertation Research Award.

References

Breines JG, Crocker J, Garcia JA. Self-objectification and well-being in women's daily lives. Personality and Social Psychology Bulletin. 2008; 34:583–598. doi:10.1177/0146167207313727. [PubMed: 18281441]

Brown A, Dittmar H. Think "thin" and feel bad: The role of appearance schema activation, attention level, and thin-ideal internalization for young women's responses to ultra-thin media ideals. Journal of Social and Clinical Psychology. 2005; 24:1088–1113. doi:10.1521/jscp.2005.24.8.1088.

Brownell KD. Dieting and the search for the perfect body: Where physiology and culture collide. Behavior Therapy. 1991; 22:1–12. doi:10.1016/S0005-7894(05)80239-4.

Byrd-Bredbenner C, Murray J, Schlussel YR. Temporal changes in anthropometric measurements of idealized females and young women in general. Women & Health. 2005; 41:13–30. doi:10.1300/J013v41n02_02. [PubMed: 16219585]

Ciao AC, Loth K, Neumark-Sztainer D. Preventing eating disorder pathology: Common and unique features of successful eating disorders prevention programs. Current Psychiatry Reports. 2014; 453 doi:10.1007/s11920-014-0453-0.

Colautti LA, Fuller-Tyszkiewicz M, Skouteris H, McCabe M, Blackburn S, Wyett E. Accounting for fluctuations in body dissatisfaction. Body Image. 2011; 8:315–321. doi:10.1016/j.bodyim.2011.07.001. [PubMed: 21840778]

Crosby RD, Wonderlich SA, Engel SG, Simonich H, Smyth J, Mitchell JE. Daily mood patterns and bulimic behaviors in the natural environment. Behaviour Research and Therapy. 2009; 47:181–188. doi:10.1016/j.brat.2008.11.006. [PubMed: 19152874]

Durkin SJ, Paxton SJ, Sorbello M. An integrative model of the impact of exposure to idealized female images on adolescent girls' body satisfaction. Journal of Applied Social Psychology. 2007; 37:1092–1117. doi:10.1111/j.1559-1816.2007.00201.x.

Fairburn, CG. Cognitive behavior therapy and eating disorders. Guilford; New York: 2008.

Festinger L. A theory of social comparison processes. Human Relations. 1954; 7:117–140. doi:10.1177/001872675400700202.

Fitzsimmons-Craft EE. Social psychological theories of disordered eating in college women: Review and integration. Clinical Psychology Review. 2011; 31:1224–1237. doi:10.1016/j.cpr.2011.07.011. [PubMed: 21903047]

Fitzsimmons-Craft EE, Bardone-Cone AM, Bulik CM, Wonderlich SA, Crosby RD, Engel SG. Examining an elaborated sociocultural model of disordered eating among college women: The roles of social comparison and body surveillance. Body Image. 2014; 11:488–500. doi:10.1016/j.bodyim.2014.07.012. [PubMed: 25160010]

Fitzsimmons-Craft EE, Bardone-Cone AM, Wonderlich SA, Crosby RD, Engel SG, Bulik CM. The relationships among social comparisons, body surveillance, and body dissatisfaction in the natural environment. Behavior Therapy. 2015; 46:257–271. doi:10.1016/j.beth.2014.09.006. [PubMed: 25645173]

Fitzsimmons-Craft EE, Harney MB, Koehler LG, Danzi LE, Riddell MK, Bardone-Cone AM. Explaining the relation between thin ideal internalization and body dissatisfaction among college women: The roles of social comparison and body surveillance. Body Image. 2012; 9:43–49. doi:10.1016/j.bodyim.2011.09.002. [PubMed: 21992811]

Fredrickson BL, Roberts T. Objectification theory: Toward understanding women's lived experiences and mental health risks. Psychology of Women Quarterly. 1997; 21:173–206. doi:10.1111/j.1471-6402.1997.tb00108.x.

Fuller-Tyszkiewicz M, Skouteris H, Richardson B, Blore J, Holmes M, Mills J. Does the burden of the experience sampling method undermine data quality in state body image research. Body Image. 2013; 10:607–613. doi:10.1016/j.bodyim.2013.06.003. [PubMed: 23856302]

Geldhof GJ, Preacher KJ, Zyphur MJ. Reliability estimation in a multilevel confirmatory factor analysis framework. Psychological Methods. 2014; 19:72–91. doi:10.1037/a0032138. [PubMed: 23646988]

Heron KE, Smyth JM. Is intensive measurement of body image reactive? A two-study evaluation using ecological momentary assessment suggests not. Body Image. 2013; 10:35–44. doi:10.1016/j.bodyim.2012.08.006. [PubMed: 22999225]

Heinberg LJ, Thompson JK. Body image and televised images of thinness and attractiveness: A controlled laboratory investigation. Journal of Social and Clinical Psychology. 1995; 14:325–338. doi:10.1521/jscp.1995.14.4.325.

Hesse-Biber S, Leavy P, Quinn CE, Zoino J. The mass marketing of disordered eating and eating disorders: The social psychology of women, thinness and culture. Women's Studies International Forum. 2006; 29:208–224. doi:10.1016/j.wsif.2006.03.007.

Hoffman, DA. Issues in multilevel research: Theory development, measurement, and analysis. In: Rogelberg, SG., editor. Handbook of research methods in industrial and organizational psychology. Blackwell; Malden, MA: 2002. p. 247-274.

Karazsia BT, van Dulmen MHM, Wong K, Crowther JH. Thinking meta-theoretically about the role of internalization in the development of body dissatisfaction and body change behaviors. Body Image. 2013; 10:433–441. doi:10.1016/j.bodyim.2013.06.005. [PubMed: 23871195]

Keery H, van den Berg P, Thompson JK. An evaluation of the tripartite influence model of body dissatisfaction and eating disturbance with adolescent girls. Body Image. 2004; 1:237–251. doi:10.1016/j.bodyim.2004.03.001. [PubMed: 18089156]

Kenny, DA.; Kashy, DA.; Bolger, N. Data analysis in social psychology. In: Gilbert, D.; Fiske, ST.; Lindzey, G., editors. The handbook of social psychology. 4th. Vol. 1. McGraw-Hill; New York: 1998. p. 223-265.

Krull JL, MacKinnon DP. Multilevel mediation modeling in group-based intervention studies. Evaluation Review. 1999; 23:418–444. doi:10.1177/0193841X9902300404. [PubMed: 10558394]

Leahey TM, Crowther JH, Ciesla JA. An ecological momentary assessment of the effects of weight and shape social comparisons on women with eating pathology, high body dissatisfaction, and low body dissatisfaction. Behavior Therapy. 2011; 42:197–210. doi:10.1016/j.beth.2010.07.003. [PubMed: 21496506]

Leahey TM, Crowther JH, Mickelson KD. The frequency, nature, and effects of naturally occurring appearance-focused social comparisons. Behavior Therapy. 2007; 38:132–143. doi:10.1016/j.beth.2006.06.004. [PubMed: 17499080]

Leahey TM, Crowther JH. An ecological momentary assessment of comparison target as a moderator of the effects of appearance-focused social comparisons. Body Image. 2008; 5:307–311. doi: 10.1016/j.bodyim.2008.03.002. [PubMed: 18585108]

Mabe AG, Forney KJ, Keel PK. Do you “like” my photo? Facebook use maintains eating disorder risk. International Journal of Eating Disorders. 2014; 47:516–523. doi:10.1002/eat.22254. [PubMed: 25035882]

McCormack HM, Horne DJ, Sheather S. Clinical applications of visual analogue scales: A critical review. Psychological Medicine. 1988; 18:1007–1019. doi:10.1017/S0033291700009934. [PubMed: 3078045]

McKinley NM, Hyde JS. The Objectified Body Consciousness Scale: Development and validation. Psychology of Women Quarterly. 1996; 20:181–215. doi:10.1111/j.1471-6402.1996.tb00467.x.

Moradi B, Huang Y. Objectification theory and psychology of women: A decade of advances and future directions. Psychology of Women Quarterly. 2008; 32:377–398. doi:10.1111/j. 1471-6402.2008.00452.x.

Muthén, LK.; Muthén, BO. Mplus user’s guide. 6th. Author; Los Angeles, CA: 2010.

Myers TA, Crowther JH. Sociocultural pressures, thin-ideal internalization, self-objectification, and body dissatisfaction: Could feminist beliefs be a moderating factor? Body Image. 2007; 4:296–308. doi:10.1016/j.bodyim.2007.04.001. [PubMed: 18089276]

Myers TA, Crowther JH. Social comparison as a predictor of body dissatisfaction: A meta-analytic review. Journal of Abnormal Psychology. 2009; 118:683–698. doi:10.1037/a0016763. [PubMed: 19899839]

Myers TA, Ridolfi DR, Crowther JH, Ciesla JA. The impact of appearance-focused social comparisons on body image disturbance in the naturalistic environment: The roles of thin-ideal internalization and feminist beliefs. Body Image. 2012; 9:342–351. doi:10.1016/j.bodyim.2012.03.005. [PubMed: 22520342]

O’Brien KS, Caputi P, Minto R, Peoples G, Hooper C, Kell S, Sawley E. Upward and downward physical appearance comparisons: Development of scales and examination of predictive qualities. Body Image. 2009; 6:201–206. doi:10.1016/j.bodyim.2009.03.003. [PubMed: 19447692]

Preacher KJ, Zyphur MJ, Zhang Z. A general multilevel SEM framework for assessing multilevel mediation. Psychological Methods. 2010; 15:209–233. doi:10.1037/a0020141. [PubMed: 20822249]

Schaefer LM, Burke NL, Thompson JK, Heinberg LJ, Calogero RM, Bardone-Cone AM, Swami V. Development and validation of the Sociocultural Attitudes Toward Appearance Questionnaire-4 (SATAQ-4). Psychological Assessment. 2015; 27:54–67. doi:10.1037/a0037917. [PubMed: 25285718]

Shiffman S. Ecological momentary assessment (EMA) in studies of substance abuse. Psychological Assessment. 2009; 21:486–497. doi:10.1037/a0017074. [PubMed: 19947783]

Shiffman S, Stone AA, Hufford MR. Ecological momentary assessment. Annual Review of Clinical Psychology. 2008; 4:1–32. doi:1-.114/annurev.clinpsy.3.022806.091415.

Shroff H, Thompson JK. The tripartite influence model of body image and eating disturbance: A replication with adolescent girls. Body Image. 2006; 3:17–23. doi:10.1016/j.bodyim.2005.10.004. [PubMed: 18089205]

Smyth J, Wonderlich S, Crosby R, Miltenberger R, Mitchell J, Rorty M. The use of ecological momentary assessment approaches in eating disorder research. International Journal of Eating Disorders. 2001; 30:83–95. doi:10.1002/eat.1057. [PubMed: 11439412]

Stein KF, Corte CM. Ecologic momentary assessment of eating-disordered behaviors. International Journal of Eating Disorders. 2003; 34:349–360. doi:10.1002/eat.10194. [PubMed: 12949927]

Stice E, Whitenton K. Risk factors for body dissatisfaction in adolescent girls: A longitudinal investigation. Developmental Psychology. 2002; 38:669–678. doi:10.1037//0012-1649.38.5.669. [PubMed: 12220046]

Suisman JL, O’Connor SM, Sperry S, Thompson JK, Keel PK, Burt SA, Klump KL. Genetic and environmental influences on thin-ideal internalization. International Journal of Eating Disorders. 2012; 45:942–948. doi:10.1002/eat.22056. [PubMed: 23034902]

Sypeck MF, Gray JJ, Etu SF, Ahrens AH, Mosimann JE, Wiseman CV. Cultural representations of thinness in women, redux: *Playboy* magazine's depiction of beauty from 1979 to 1999. Body Image. 2006; 3:229–235. doi:10.1016/j.bodyim.2006.07.001. [PubMed: 18089225]

Thompson, JK.; Heinberg, LJ.; Altabe, M.; Tantleff-Dunn, S. Exacting beauty: Theory, assessment, and treatment of body image disturbance. American Psychological Association; Washington, DC: 1999. doi:10.1037/10312-000

Thompson JK, Stice E. Thin-ideal internalization: Mounting evidence for a new risk factor for body-image disturbance and eating pathology. Current Directions in Psychological Science. 2001; 10:181–183. doi:10.1111/1467-8721.00144.

van den Berg P, Thompson JK, Obremski-Brandon K, Coovert M. The Tripartite Influence model of body image and eating disturbance: A covariance structure modeling investigation testing the meditational role of appearance comparison. Journal of Psychosomatic Research. 2002; 53:1007–1020. doi:10.1016/S0022-3999(02)00499-3. [PubMed: 12445590]

Wegner KE, Smyth JM, Crosby RD, Wittrock D, Wonderlich SA, Mitchell JE. Evaluation of the relationship between mood and binge eating in the natural environment using ecological momentary assessment. International Journal of Eating Disorders. 2002; 32:352–361. doi:10.1002/eat.10086. [PubMed: 12210650]

Wiseman CV, Gray JJ, Mosimann JE, Ahrens AH. Cultural expectations of thinness in women: An update. International Journal of Eating Disorders. 1992; 11:85–89. doi:10.1002/1098-108X(199201)11:1<85::AID-EAT2260110112>3.0.CO;2-T.

Yates A, Edman J, Aruguete M. Ethnic differences in BMI and body/self-dissatisfaction among Whites, Asian subgroups, Pacific Islanders, and African-Americans. Journal of Adolescent Health. 2004; 34:300–307. doi:10.1016/j.jadohealth.2003.07.014. [PubMed: 15040999]

Zuckerman M, O'Loughlin RE. Self-enhancement by social comparison: A prospective analysis. Personality and Social Psychology Bulletin. 2006; 32:751–760. doi:10.1177/0146167205286111. [PubMed: 16648200]

Author Manuscript

Author Manuscript

Author Manuscript

- Mediators of the thin-ideal internalization-body dissatisfaction relation were tested
- Mediators were body, eating, and exercise comparisons and body surveillance
- Ecological momentary assessment was used
- At the state level, all processes emerged as significant mediators
- At the trait level, only body comparison and body surveillance were significant

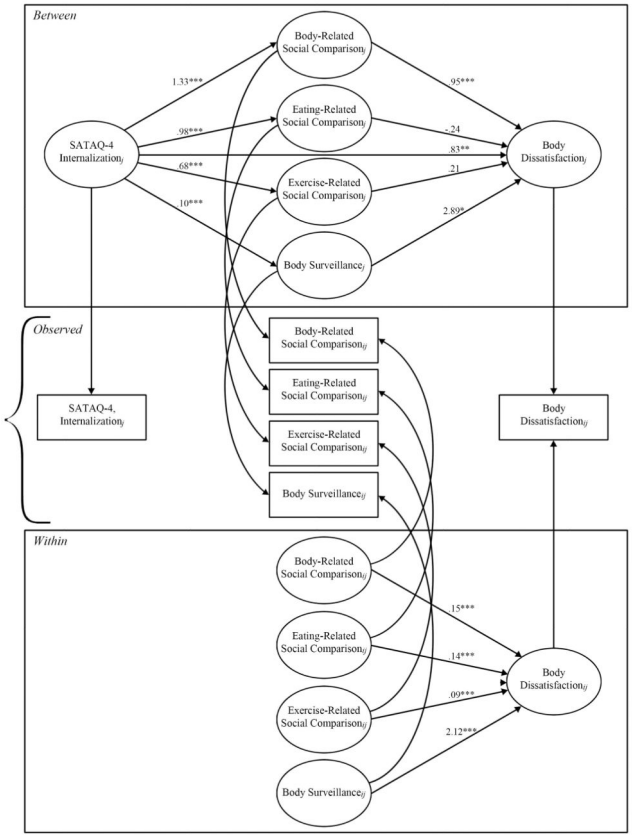

Figure 1.

Illustration of the full 2-1-1 mediation model with unstandardized path coefficients. For simplicity, correlations between the mediators are not shown but were included in the model (and were all significant at the $p < .001$ level). SATAQ-4 = Sociocultural Attitudes Toward Appearance Questionnaire-4. *$p < .05$. **$p < .01$. ***$p < .001$.

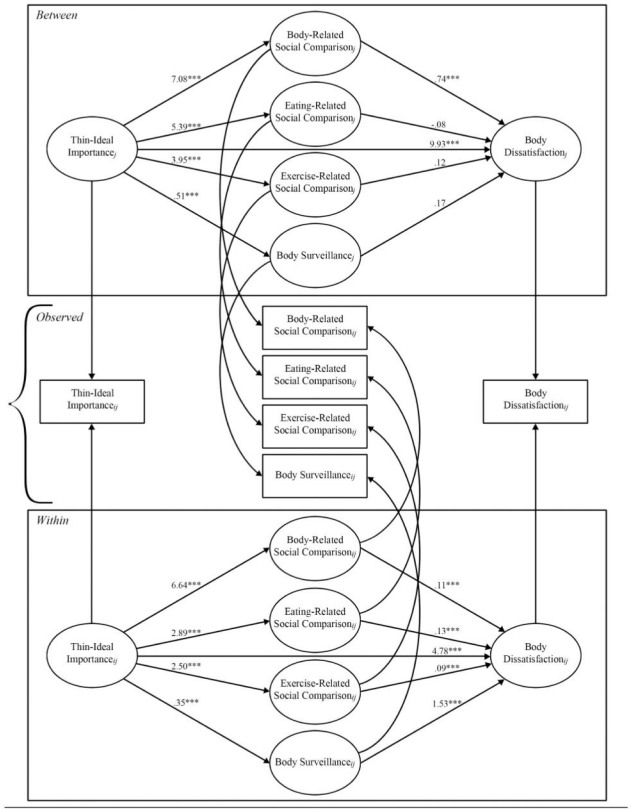

Figure 2.

Illustration of the full 1-1-1 mediation model with unstandardized path coefficients. For simplicity, correlations between the mediators are not shown but were included in the model (and were all significant at the $p < .001$ level). ***$p < .001$.

Table 1

Grand Means and Standard Deviations for Person-Level Means of the Constructs Assessed via Ecological Momentary Assessment (EMA) (n = 232)

Construct	*M*	*SD*	Actual Range	Possible Range
Thin-ideal importance	2.80	1.07	1.00-5.00	1-5
Body-related social comparison	18.24	15.20	0.13-77.58	0-100
Eating-related social comparison	12.48	14.10	0.00-73.87	0-100
Exercise-related social comparison	9.37	11.67	0.00-77.84	0-100
Body surveillance	3.95	1.06	1.28-6.85	1-7
Body dissatisfaction	31.67	24.45	0.00-99.35	0-100

Table 2

Variance Components and Intraclass Correlations for Momentarily Assessed Body Dissatisfaction and Thin-Ideal Importance

Construct	Between-Person Variance	Within-Person Variance	Total Variance	Intraclass Correlation
Body dissatisfaction	587.69	196.89	784.58	.75
Thin-ideal importance	1.13	0.57	1.71	.66