



Published in final edited form as:

Eat Behav. 2009 December ; 10(4): 202–208. doi:10.1016/j.eatbeh.2009.06.003.

Associations among body size dissatisfaction, perceived dietary control, and diet history in African American and European American women

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Abstract

European American (EA) women report greater body dissatisfaction and less dietary control than do African American (AA) women. This study investigated whether ethnic differences in dieting history contributed to differences in body dissatisfaction and dietary control, or to differential changes that may occur during weight loss and regain. Eighty-nine EA and AA women underwent dual energy X-ray absorptiometry to measure body composition and completed questionnaires to assess body dissatisfaction and dietary control before, after, and one year following, a controlled weight loss intervention. While EA women reported a more extensive dieting history than AA women, this difference did not contribute to ethnic differences in body dissatisfaction and perceived dietary control. During weight loss, body satisfaction improved more for AA women, and during weight regain, dietary self-efficacy worsened to a greater degree for EA women. Ethnic differences in dieting history did not contribute significantly to these differential changes. Although ethnic differences in body image and dietary control are evident prior to weight loss, and some change differentially by ethnic group during weight loss and regain, differences in dieting history do not contribute significantly to ethnic differences in body image and dietary control.

Keywords

dieting; ethnicity; weight loss; body dissatisfaction; cognitive restraint; self-efficacy

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1. Introduction

Ethnic differences in body image and self-reported dietary control among women have frequently been reported. European American (EA) women report greater body size dissatisfaction (Roberts, Cash, Feingold, & Johnson, 2006; Wilfley et al., 1996; Williamson et al., 2000) and lesser dietary restraint as compared to African American (AA) women (Atlas, Smith, Hohlstein, McCarthy, & Kroll, 2002; Stevens, Kumanyika, & Keil, 1994; Wing, Adams-Campbell, Marcus, & Janney, 1993). Furthermore, EA women consistently report more previous dieting attempts than do AA women (Breitkopf & Berenson, 2004; Stevens et al., 1994; Strauss, 1999; Striegel-Moore, Wilfley, Caldwell, Needham, & Brownell, 1996). These ethnic differences in body image and dietary control are frequently attributed to cultural differences in body satisfaction and ideals of thinness (Harris, 1994; Miller et al., 2000; Stevens et al., 1994). Although ethnic group differences in dieting history are likely due to cultural factors, it is also possible that the differential dieting history, independent of culture, has contributed to ethnic differences in body image and dietary control. Given that EA women diet more frequently and thus experience more dieting failures than do AA women, this previous history might negatively impact current perception of body size and dietary control, thus compounding known ethnic differences in these variables. To our knowledge, previous studies have not explored the role of dieting history as it pertains to variation in body image and perceived dietary control among ethnic groups. It is important to identify potential mechanisms underlying these ethnic differences because ultimately, an understanding of these mechanisms might facilitate design of weight loss interventions that are tailored to meet the needs of diverse individuals. The primary goal of this study then, was to investigate whether ethnic differences in dieting history contribute to differences in body size dissatisfaction and perceived dietary control between EA and AA women.

Despite the fact that AA women do report less body size dissatisfaction and better dietary control, those motivated to lose weight might still experience changes in body image and dietary control during weight loss and regain. Logically, body size dissatisfaction would be expected to lessen with weight loss and worsen with weight gain, and other studies have shown that dietary control improves with weight loss (Clark, Marcus, Pera, & Niaura, 1994; Foster et al., 1998) and worsens with weight gain (McGuire, Wing, Klem, Lang, & Hill, 1999). To date, however, no study has determined whether the magnitude of change in body size dissatisfaction and dietary control differs for EA and AA women. A secondary goal of this study then was to explore whether body size dissatisfaction and perceived dietary control changes differentially for EA and AA women during weight loss and regain, and if so, whether these differential changes could be attributed in part to differences in dieting history.

The current study investigates the influence of previous dieting history on ethnic differences in body dissatisfaction and perceived dietary control among overweight women enrolled in a weight loss and weight loss maintenance study. We hypothesized that the more extensive dieting history of EA women would contribute to their greater body size dissatisfaction and lesser dietary control prior to the weight loss intervention. We also hypothesized that the more extensive dieting history of EA women would result in lesser change in body size dissatisfaction and perceived dietary control during weight loss, and greater worsening of these measures during weight regain, as compared to AA women.

2. Methods

2.1 Participants

This study was carried out among 89 women (43 EA and 46 AA) who were participating in a weight loss/weight loss maintenance study. AA and EA women aged 20-41 years were recruited in an overweight state (Body Mass Index (BMI) = 27-30kg/m²). Ethnicity was self-

defined, and those selected for inclusion also had parents and grandparents of the same ethnic group. The women had a family history of obesity, experienced regular menstrual cycles, had normal glucose tolerance, were sedentary, and did not take metabolism-altering medication. Women who did not adhere to the diet during the weight loss intervention were excluded from further participation. Two-hundred and twenty-eight women enrolled in the parent study, and 184 were administered baseline questionnaires. Of those 184 participants, 115 completed the weight loss phase, and 94 returned for the 1-year follow-up. Questionnaires were completed at all three time-points by 89 participants, and their data was used for the current analysis. There were no baseline group differences in any of the variables assessed in this study for women who completed all three time-points versus those who withdrew from the parent study or those who remained enrolled but had incomplete data.

2.2 Procedure

Participants were randomly assigned to one of three weight-loss intervention groups: diet only (N = 17), diet + resistance exercise training (N = 38), diet + aerobic exercise training (N = 34). Details of the intervention have been described previously (Hunter et al., 2008), but in brief, participants lost weight via an investigator-provided 800 kcal/day diet with three 40-minute structured exercise training sessions (for resistance and aerobic groups only), until they obtained a BMI <25 kg/m². The diet was comprised of 20-23% of calories from fat, 20-23% of calories from carbohydrate, and 56-59% of calories from protein. If they were enrolled in an exercise training group, they attended three 40-minute structured exercise training sessions per week. During the 1-year follow-up period, participants were encouraged, but not mandated, to attend regular support group meetings and to continue with their exercise program, if applicable.

Testing for the current study was conducted after 4-weeks of supervised weight maintenance immediately prior to weight loss, immediately post weight loss, and at the 1-year follow-up. To monitor weight stability prior to testing, participants were weighed twice per week, and food was provided to the participants for the final 2 weeks of each 4-week weight maintenance period. In a previous study of this data, we found that while there was some weight change during each weight maintenance period, there was not an ethnic group difference in the amount of weight change (Douglas et al., 2007). At the end of each 4-week period, participants were admitted to the General Clinical Research Center (GCRC) at the University of Alabama at Birmingham for inpatient testing of metabolic health. Following the evening meal during inpatient visits, participants were given questionnaires (described below) to complete and return to the investigators. Dual-energy X-ray absorptiometry (DXA) to assess body composition was performed following breakfast at each inpatient visit.

2.3 Questionnaires

Each participant completed a packet of questionnaires during each GCRC inpatient visit. The packet included questionnaires to assess dieting history, dietary control, body image, and socio-economic status (SES).

Dieting history was measured with a brief questionnaire specific to this study, which was similar to measures used by other investigators (e.g. (Marchesini et al., 2004; Strychar et al., 2009)). Participants were asked to recall the number of times they had intentionally lost defined amounts of weight since the age of 15 years. The minimum age of 15 was given in order to minimize differences in memory of childhood diets and amount of weight lost. For each weight loss category (i.e. 5-9 lb, 10-19 lb, 20-49 lb, 50-79 lb, 80-99 lb, and 100+ lb), participants circled 0, 1-2, 3-4, 5-6, or 7+ times. Two dieting history variables were created from the results: number of dieting attempts and lifetime total weight loss. To obtain an overall sum for number of previous dieting attempts, we added together the frequency of each weight loss category,

using the lower number when two numbers were listed (i.e. 1-2 was scored as a “1”). The estimate of lifetime total weight loss was calculated by multiplying the mid-point of each weight range (i.e. 14.5 was used for the range 10-19 lb) with the number of times (using the lower number when two numbers were offered) women reported losing that amount of weight, and then summing the results. The test-retest reliability for this instrument in our sample, measured prior to and following the weight loss intervention, was $r = 0.83$.

Body image was measured with the Stunkard Figure Rating Scale (Stunkard, Sorenson, & Schulsinger, 1983), which has been frequently used in previous studies and found to correlate well with BMI of both EA and AA women (Patt, Lane, Finney, Yanek, & Becker, 2002; Sherman, Iacono, & Donnelly, 1995). In this questionnaire, women were asked to select a number from 1 (leanest) to 9 (largest), representing different body sizes, to identify their self-perceived current body size, and their ideal body size. The difference between these two answers was calculated as a measure of their body size dissatisfaction.

To measure dietary control, two different questionnaires were provided; the Three-Factor Eating Questionnaire - Revised (TFEQ-R; Karlsson, Persson, Sjöström, & Sullivan, 2000), and the Weight Efficacy Lifestyle (WEL) questionnaire (Clark, Abrams, Niaura, Eaton, & Rossi, 1991). The 18-item TFEQ-R provides scores on three factors: cognitive restraint (CR), uncontrolled eating/disinhibition (UE), and emotional eating (EE). Higher scores indicate greater cognitive restraint, less uncontrolled eating, and less emotional eating. We elected to use this revised version rather than the original TFEQ because this version is shorter and so eased the paperwork burden on the participants. The WEL questionnaire contains 20-items that address dietary self-efficacy (i.e. confidence to resist food), yielding an overall mean and 5 subscale scores. Higher scores reflect greater confidence to resist food. Given that the factor structure of this measure has not been confirmed in the AA population (Dutton, Martin, Rhode, & Brantley, 2004), we used only the overall mean of this instrument. In our overall sample, there was some colinearity between the individual TFEQ-R subscale scores and the WEL; the TFEQ-R subscale scores were significantly correlated with each other (r 's range from 0.22 to 0.64), and the WEL mean was correlated with both the UE and EE subscales of the TFEQ-R ($r = 0.54$ and 0.45 respectively).

We also assessed socio-economic status (SES) of women enrolled in the study with the Hollingshead 4-factor index of social class (Cirino et al., 2002). This questionnaire derives SES from the occupational status and educational attainment of the participant and her spouse, if applicable, with higher scores reflecting greater SES.

2.4 Body composition

Body weight was recorded on each day of the participants' 4-day GCRC admission (Scale-tronix 6702W; Scale-tronix, Carol Stream, IL) to the nearest 0.1 kg in minimal clothing without shoes. These weights were then averaged. Height was recorded without shoes using a digital stadiometer (Heightronix 235; Measurement Concepts, Snoqualmie, WA).

Total and regional body composition was measured by dual energy X-ray absorptiometry (DXA, GE-Lunar-Prodigy, Madison, Wisconsin). Scans were analyzed for total fat and total lean mass using the adult software (Version 1.33).

2.5 Statistical Analysis

Baseline ethnic differences in body composition, dieting history, body dissatisfaction, and dietary control, were assessed with independent groups t -tests. ANCOVA was then used to determine whether any baseline ethnic differences were mediated by dieting history.

To assess whether perceived body image and dietary control changed differentially by ethnic group during weight loss and regain, repeated measures ANCOVA, adjusting for change in percent body fat, were conducted. The adjustment for change in percent body fat was made in order to account for individual and ethnic differences in the amount of fat lost and gained during the study period because this would likely have influenced changes in perceived body dissatisfaction and dietary control. By adjusting for change in body fat, any residual change in body image and dietary control could be surmised as due to perceptual rather than actual gain/loss in body fat or weight. Separate ANCOVA were conducted during each phase (weight loss and 1-year follow-up/weight regain), so as to avoid imposing a linear model on data that was not expected to be linear (i.e. reciprocal changes over time due to the weight loss and then regain). When a time by ethnicity interaction was found, another ANCOVA was conducted, including dieting history as a further covariate, to examine whether differential ethnic changes in body image or dietary control during weight loss and gain could be explained, at least in part, by ethnic differences in dieting history.

Although participants were assigned to receive aerobic, resistance, or no exercise training during the weight loss intervention, there were no differences between the treatment groups in terms of changes to body size dissatisfaction or perceived dietary control during or after the weight loss intervention. Therefore, treatment group assigned to during the intervention was not included in these analyses.

3. Results

3.1 Baseline ethnic differences

Baseline description and outcomes are presented in Table 1 by ethnic group. The EA and AA participants did not differ in terms of age, BMI, and SES. EA, as compared to AA, women reported approximately 60% more diets during their adult lives, and on average, had lost almost double the amount of weight that the AA women had. Furthermore, EA women lost more weight per diet (EA: 16.64 ± 12.66 , AA: 12.15 ± 5.50 , $p < 0.05$). The EA women perceived themselves to be much larger than did AA women, and had greater body size dissatisfaction. In terms of dietary control, EA women scored lower on two of the four dietary control indices compared to AA women.

When dieting history was included as a covariate, the number of previous dieting attempts did not alter the baseline ethnic differences noted above. However, adjustment for lifetime weight loss did enhance the ethnic difference in baseline percent body fat, but weakened the difference in body image dissatisfaction ($0.05 < p < 0.10$). ANCOVA with dieting history as the covariate found that neither the number of previous dieting attempts nor lifetime weight loss influenced the ethnic differences in dietary control.

3.2 Changes to body fat and body size dissatisfaction with weight loss and gain

On average, women took 150 days to obtain a BMI $< 25 \text{ kg/m}^2$ which was the prescribed weight loss goal. Repeated measure ANOVA showed that there was no difference in the length of time it took to obtain the weight loss goal for the EA and AA women, and they each lost a similar amount of body fat during weight loss (Time: $F=1537.26$, $p<0.001$; Figure 1A). During the 1-year follow-up period, AA women gained more fat than did EA women (Ethnicity \times Time: $F=5.89$, $p<0.05$; Figure 1A). Using ANCOVA to adjust for the number of previous dieting attempts or lifetime weight loss did not alter the ethnic difference in fat gain during follow-up (Ethnicity \times Time: $F=5.75$, $p<0.05$; $F=6.25$, $p<0.05$, respectively). Repeated measures ANCOVA with adjustment for fat lost during the intervention showed that body dissatisfaction was reduced to a greater degree in AA compared to EA women (Ethnicity \times Time: $F=4.11$, $p<0.05$; Figure 1B). Adjustment for number of previous dieting attempts or lifetime weight

loss did not alter this effect (Ethnicity \times Time: $F=5.71$, $p<0.05$; $F=6.45$, $p<0.05$, respectively). During the 1-year follow-up period, ANCOVA with adjustment for change in body fat showed no change in body dissatisfaction for either ethnic group (Time: $F=2.15$, $p>0.1$; Figure 1B).

3.3 Changes to perceived dietary control during weight loss and gain

Repeated measures ANCOVA with adjustment for change in percent body fat showed that the dietary control indices did not change significantly with weight loss (Figure 2). During the 1-year follow-up period, emotional eating worsened to a similar degree for EA and AA women (Time: $F=7.36$, $p<0.01$; Figure 2C). Dietary self-efficacy was unchanged for AA women, but scores for EA women were reduced even after adjusting for change in percent body fat (Ethnicity \times Time: $F=7.44$, $p<0.01$; Figure 2D). ANCOVA with adjustment for lifetime weight loss, but not for number of previous diets, weakened the ethnic difference in change of dietary self-efficacy scores during the 1-year follow-up period (Ethnicity \times Time: $F=3.36$, $p=0.07$).

4. Discussion

This study was designed to investigate whether ethnic differences in dieting history contributed to differences in body size dissatisfaction and perceived dietary control among EA and AA women. A further aim was to determine whether differential changes to body dissatisfaction and perceived dietary control during weight loss and gain occur for each ethnic group, and whether any such differential changes were due to ethnic differences in dieting history. Although EA women had a more extensive dieting history, this history had only a marginal influence on baseline ethnic differences in self-reported body dissatisfaction and had no influence on dietary control. Weight loss induced a greater reduction of body size dissatisfaction for AA compared to EA women, but this ethnic difference could not be attributed to differences in dieting history. During the follow-up period, when most participants regained at least some of the previously lost weight, EA women experienced a greater reduction in dietary self-efficacy compared to the AA women. This differential change in perceived dietary self-efficacy that occurred with weight gain was only minimally attributed to the ethnic difference in dieting history.

The ethnic difference in baseline perceived body size shown here is consistent with other studies of ethnic group differences in body size perception. African American women, on average, tend not to overestimate their body weight as much as EA women do (Miller et al., 2000; Stevens et al., 1994), and may actually underestimate their body size (Schuler et al., 2008). In this study, we extended these findings by showing that lifetime weight loss partially mediated the ethnic difference in body size dissatisfaction. Previous studies have found that people with a less extensive dieting history tend to have a more positive body image (Foster, Wadden, & Vogt, 1997), and conversely, a more extensive dieting history yields overestimation of body size among women (Mossavar-Rahmani, Peltó, Ferris, & Allen, 1996). Therefore, it is possible that at least part of the ethnic difference in body size dissatisfaction found in the general population may be due to the more extensive dieting history of EA women. Given that, in our study, the influence of dieting history was marginal however, it is likely that other cultural differences, such as the greater acceptance of larger body sizes among AA women (Harris, 1994; Miller et al., 2000; Stevens et al., 1994), and the internalization of the thin-ideal among EA women (Vaughan, Sacco, & Beckstead, 2008), play a greater role in ethnic differences of body size perception than does the differential dieting history.

The greater reduction in body size dissatisfaction among AA women during the weight loss intervention may have resulted from their baseline perception that they were smaller than the EA women perceived themselves to be. This perception of being smaller upon entry to the study may have resulted in greater satisfaction with subsequent weight loss as compared to the EA women. Similarly, the bias of EA women towards perceiving themselves to be larger than

they really are (Miller et al., 2000; Stevens et al., 1994) may have minimized any improvement in body size dissatisfaction with weight loss. Another possible contributing factor to this effect is the fact that AA women report social pressure to accept their current body size, even if they themselves want to lose weight (Baturka, Hornsby, & Schorling, 2000). The greater social acceptance of any body size among the AA population may enhance AA women's satisfaction with weight loss. It would be of interest in the future to explore cultural and perceptual reasons for the differential changes in body image that occur between ethnic groups during weight loss.

In more physiological terms, the greater improvement in body satisfaction for AA women during weight loss may have been due to the fact that AA women retained greater fat-free mass than did the EA women (Hunter et al., 2008). The greater loss of fat free mass in the EA women may have counteracted the beneficial effect of loss of body fat and resulted in lesser improvement in body size satisfaction. Future studies should explore the role of body composition on body size dissatisfaction, both to determine whether muscle tone, for example, plays a role in body image perception, and also to determine whether this might help to explain ethnic differences in body size perception.

Prior to weight loss, EA women reported more emotional eating and less control of eating which is consistent with previous literature showing better dietary restraint among AA women (Atlas et al., 2002; Stevens et al., 1994; Wing et al., 1993). During weight loss, none of the dietary control indices changed significantly for either ethnic group which is contrary to some reports of other studies (Clark et al., 1994; Foster et al., 1998). The reason for this discrepancy may be due to the fact that participants of our study were moderately overweight (BMI 27-30 kg/m²) upon entry to the study, and thus had less weight to lose prior to reaching goal weight, whereas those enrolled in the aforementioned weight loss studies were obese. During the 1-year follow-up, both EA and AA women reported an increase in emotional eating. This response may have been due to the fact that during the intervention, food was provided for the women and so they may not have succumbed to negative affect-induced urges to eat. Another possibility for this difference is real changes in the amount of negative affect experienced. At least one other study has shown that weight regain is associated with worsening depression (Wing et al., 2008) and we have unpublished data from this cohort showing that depression worsened to a similar degree during the 1-yr follow-up for EA and AA women.

The worsening of dietary self-efficacy during the 1-year follow-up period reflects the fact that EA women lost confidence in their ability to refrain from eating during this time while the AA women maintained the same degree of confidence. Given that dieting history appeared to only marginally contribute to this ethnic difference, the lack of confidence of the EA women could not be largely attributed to their greater experience with previous dieting failures. Interestingly, this reduction in confidence was also not indicative of a greater body weight gain of the EA women because they actually regained less body fat during the follow-up period than did the AA women. This finding is somewhat congruent with a review of the psychological effects of weight cycling (Foster, Sarwer, & Wadden, 1997), in which weight cycling was associated with reductions in self-efficacy. However, in our study, the ethnic difference in dieting history did not result in any ethnic difference in dietary self-efficacy at baseline. It may be that the reduction of EA women's confidence during follow-up reflects a more complex interaction between body size dissatisfaction, weight gain, and dietary control. Given that the EA women were less satisfied with their body size prior to weight loss, they may have been more concerned about subsequent weight regain and thus more strict to evaluate their dietary control. This is consistent with previous research showing that AA adolescent females tend to view overeating less negatively and are not as fearful of weight gain as are EA adolescent females (Casper & Offer, 1990). Similarly, given that EA women tend to have greater internalization of the thin-ideal (Vaughan et al., 2008), the EA women in our sample may have had more unrealistic diet control goals than did AA women, resulting in a more harsh perception of dietary control given

their weight gain during the follow-up period. Thus, cultural differences in the perception of overeating, and in the interaction between body size satisfaction and weight change, may have contributed to ethnic differences in the change in dietary self-efficacy found following weight loss.

An important strength of this study was that all food during assessment periods and during the weight loss intervention was provided to the study participants. The food provided during the assessment periods was sufficient to maintain each participant in energy balance, and so enabled better control of the conditions under which the participants recorded their body dissatisfaction and dietary control. Furthermore, provision of food for both the assessment periods and during the weight loss intervention enabled standardization of the macronutrient content of the diets. This type of control over food intake and state of energy balance of study participants is rarely found in studies assessing body dissatisfaction, dietary control, and dieting history, but may be important given that an episode of recent under- or overeating could feasibly influence the results. A further strength of this study is that DXA was used to assess body composition so that changes in body fat could be included, rather than relying on general body weight or BMI changes. This was particularly important given that a comparison was made between EA and AA women, because, at the same body weight, AA women often are found to have more lean body mass whereas EA women have more fat mass.

Despite the benefits of providing all food to the study participants, this might also be viewed as a limitation to this study, because it may have altered participants' perceptions of their own dietary control, and also perhaps muted any changes to dietary control that were seen during the weight loss intervention. Another potential limitation of the study was the measure used to obtain dieting history information. We used a questionnaire designed specifically for use in this study that relied on participant recall of dieting history, and this measure has not been validated elsewhere. The choice of weight groupings used in the measure was arbitrary and we cannot rule out the possibility that a more specific measure of dieting history would have yielded different results.

In conclusion, results of this study do not support the hypothesis that ethnic differences in dieting history contribute to differences in body image and perceived dietary control. Furthermore, although EA and AA women experience many similar changes to body image and perceived dietary control during weight loss and regain, body size dissatisfaction was lessened by weight loss to a greater degree among AA women as compared to EA women, and dietary self-efficacy worsened during weight gain to a greater degree for EA versus AA women. Dieting history did not affect the ethnic difference in body dissatisfaction change with weight loss, and was only marginally influential on the ethnic difference in dietary self-efficacy change with weight gain. Therefore, we have no evidence to suggest that differential dieting history contributes in any clinically significant manner to ethnic differences in body image and perceived dietary control. Future research should focus on the influence of underlying cultural or physiological differences between EA and AA women on perceptual responses to weight loss and regain.

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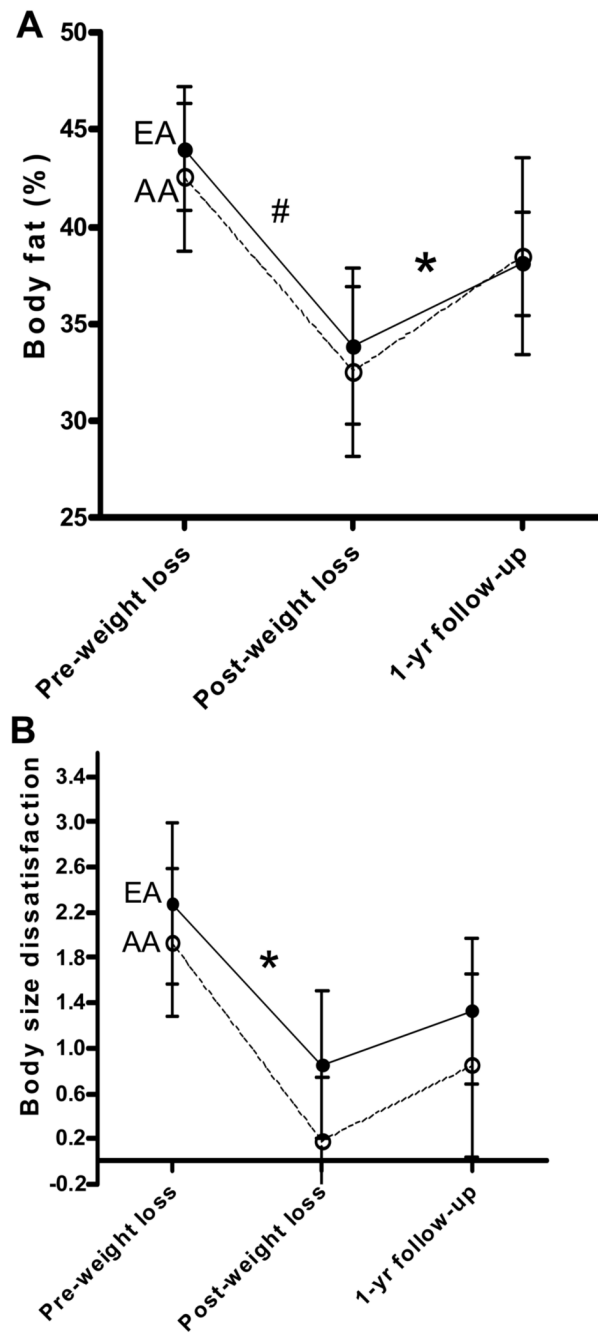


Figure 1.

Changes in body fat (A) and body size dissatisfaction (B) during weight loss and follow-up for EA and AA women. Data are unadjusted; mean \pm SD; # Time effect for reduction in % body fat during the intervention, $p < 0.05$; * Ethnicity X Time effects for fat gain during follow-up period, and for change in body size dissatisfaction during weight loss intervention, $p < 0.05$.

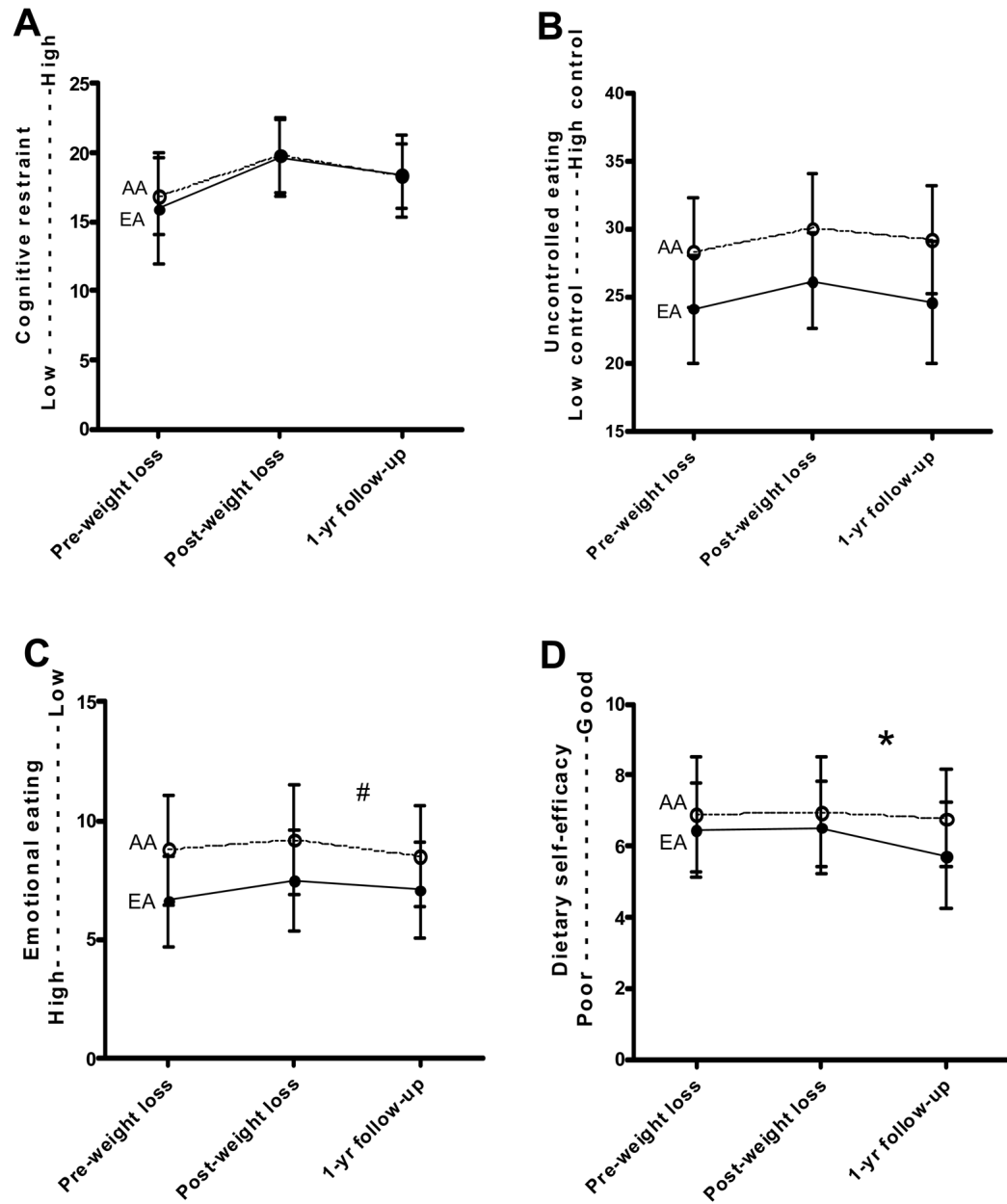


Figure 2. Changes in cognitive restraint (A), uncontrolled eating (B: high score reflects better control), emotional eating (C: high score reflects lack of emotional eating), and dietary self-efficacy (D), during weight loss and follow-up for EA and AA women. Data are unadjusted; mean \pm SD; # Time effect for worsening of emotional eating symptoms during follow-up, $p < 0.05$; * Ethnicity X Time effect during follow-up, $p < 0.05$.

Table 1

Ethnic differences in body composition, dieting history, dietary control, body image, physical and psychological health at baseline, while overweight (Mean + SD).

	EA	AA	t
N	43	46	
Age (y)	33.96 ± 6.58	35.03 ± 6.45	-0.78
SES ^a	45.48 ± 9.12	45.38 ± 9.64	-0.28
BMI (kg/m ²)	28.12 ± 1.26	28.24 ± 1.20	-0.44
Body fat (%)	44.03 ± 3.19	42.56 ± 3.83	1.97 [†]
Perceived body image	5.42 ± 0.62	4.93 ± 0.69	3.49 ^{***}
Ideal body image	3.14 ± 0.55	3.00 ± 0.42	1.35
Body image dissatisfaction	2.28 ± 0.71	1.93 ± 0.65	2.40 [*]
Previous diet attempts	5.49 ± 4.40	3.46 ± 3.79	2.34 [*]
Lifetime loss	80.99 ± 72.25	40.94 ± 46.29	3.14 ^{**}
Cognitive Restraint	15.93 ± 4.03	16.80 ± 2.77	-1.20
Uncontrolled eating	24.07 ± 3.97	28.26 ± 4.05	-4.92 ^{***}
Emotional Eating	6.63 ± 1.89	8.78 ± 2.31	-4.80 ^{***}
Dietary self-efficacy	6.45 ± 1.32	6.90 ± 1.60	-1.43

* p<0.05,

** p<0.01,

*** p<0.001,

[†] 0.05<p<0.1

^a N = 39 EA and 43 AA; SES information obtained at first point available (baseline, post-weight loss, or 1-year follow-up)