

The study investigated body image in young adults from two countries with different histories of media exposure. Questionnaires assessing body dissatisfaction, dieting, disordered eating, leisure pursuits, and media exposure were administered to 394 Australian university students and 415 Estonian university students. Although there were large gender differences between men and women, in contrast to prediction, there were relatively few differences on body concern between Australian and Estonian students.

A CROSS-CULTURAL COMPARISON OF BODY DISSATISFACTION IN ESTONIAN AND AUSTRALIAN YOUNG ADULTS AND ITS RELATIONSHIP WITH MEDIA EXPOSURE

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A great deal of research has investigated the body image concerns of women in Western English-speaking countries. In the United States, Canada, the United Kingdom, and Australia, many studies have shown that women experience much more body dissatisfaction and perceive themselves as more overweight than do men, beliefs that are manifested in a much greater incidence of dieting (see Grogan, 1999, for a review). The eating disorders of anorexia nervosa and bulimia nervosa also occur much more frequently among women.

In contrast, very little research attention has as yet been directed at the body concerns of women other than those of Anglo-Celtic origin in Western countries. Even where other ethnic or racial groups have been studied, this has mostly been in the context of English-speaking countries, for example, Blacks or Hispanics in the United States (Altabe, 1998), Asian girls in Britain (Hill & Bhatti, 1995), or Greek Australians in Australia (Mildred, Paxton, & Wertheim, 1995). These studies do illustrate, however, the need to take cultural group into account.

The aim of the proposed study is to compare body concern and dissatisfaction in a sample of young adults in Australia, with a similar sample in a very different country, Estonia. Australia is an English-speaking Western country. Estonia is a country that gained independence from the Soviet Union in 1992. Its national language is Estonian, but everyday business was largely conducted in Russian until independence. The media were largely centrally controlled. As such, Estonia has not had as long a history of exposure to commercialised Western, largely American-based, media depicting thin idealised bodies as is the case in Australia. Accordingly, it is predicted that Estonian women will suffer less body dissatisfaction and disordered eating symptomatology than their Australian counterparts.

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METHOD

PARTICIPANTS

Participants were students at the Flinders University of South Australia and at the Tallinn Pedagogical University and Tallinn Technical University, recruited through undergraduate classes in psychology, economics, and chemistry. The cities in which the universities are situated, that is, Adelaide and Tallinn, are the capital cities of South Australia and Estonia, respectively. Both cities have relatively high tertiary participation rates, making it unlikely that there would be substantial socioeconomic status differences.

A total of 394 Australian students (119 men and 275 women) who were less than or equal to 35 years old participated at the Flinders University of South Australia. Their mean age was 20.2 years (range 17 to 35). There were 415 Estonian students (157 men and 258 women) from the Tallinn Universities, with a mean age of 20.6 years (range 18 to 35).

MEASURES

There were two versions of the questionnaire: the original in English, and a translation into Estonian carried out by the second author, who is bilingual. To validate the translation, all items were independently back-translated into English by a professional translator.

Physical characteristics. Participants were asked their age, gender, height, and weight. From these latter two, Body Mass Index (BMI) can be calculated as the ratio of weight (kilograms) to height squared (m^2).

Figure preference ratings. Students were presented with Fallon and Rozin's (1985) series of nine silhouette figure drawings ranging from very thin to very fat, and asked to indicate by choosing a number (including intermediate numbers): (a) the figure that approximates their current figure (current), (b) the one they would like to look like (ideal), (c) the one they consider most attractive to the opposite sex (attractive), and finally (d) the figure of the opposite sex they find most attractive.

Body dissatisfaction measures. From the figure ratings described above, body dissatisfaction was calculated as the discrepancy between current and ideal figures.

Participants also rated themselves on a 7-point Likert-type scale from 1 (*extremely underweight*) through 4 (*normal weight*) to 7 (*extremely overweight*), as well as their satisfaction with their current weight, from 1 (*extremely dissatisfied*) to 7 (*extremely satisfied*). Finally, participants nominated their ideal weight, which was then subtracted from their current weight and expressed as a percentage of actual weight. This produces a parametric measure of degree of subjective overweight.

Dieting. Participants were asked if they had ever been on a diet for at least 2 weeks to lose weight (no/yes), whether they were currently dieting (no/yes), and how often they weighed themselves, on a 6-point Likert-type scale from 1 (*never*) to 6 (*more than once a day*). They also completed the 10-item Revised Restraint Scale of Herman and Polivy (1980), which can be divided into two subscales: Concern for Dieting, which reflects the attention paid to eating and dieting, and Weight Fluctuation, reflecting the extent of previously experienced weight

gain and loss. In the present sample, internal reliability was moderate for the total Restraint Scale (Cronbach's $\alpha = .77$) and for its two subscales (α s = .76, .66). It should be noted, however, that there were many missing values on the Weight Fluctuation subscale (20% missing for both Australian and Estonian respondents).

Leisure and media pursuits. Participants were asked whether they participated in organised sport (no/yes) or regular exercise (no/yes). They were then asked how many hours per week on average they spent: (a) watching television, (b) reading, and (c) socialising. Finally, they rated how often they read fashion magazines from 1 (*never*) to 5 (*more than once a week*).

Disordered eating. Disordered eating was assessed by the three behavioural subscales (Drive for Thinness, Bulimia, Body Dissatisfaction) of the Eating Disorder Inventory (EDI) of Garner, Olmsted, and Polivy (1983). Drive for Thinness refers to intense preoccupation with weight and fear of weight gain, and is the EDI's primary indicator of anorexia nervosa tendencies. The Bulimia scale assesses tendencies to think about and engage in bouts of uncontrollable eating, whereas the Body Dissatisfaction scale assesses dissatisfaction with overall weight and specific areas of the body (e.g., stomach, thighs). Items are rated on 6-point Likert-type scales, 1 (*always*) to 6 (*never*). Untransformed scores were utilised here, as recommended for nonclinical populations. In the present sample, internal reliabilities for the subscales were moderately high (α ranging from .80 to .93), as was the case for the total EDI score ($\alpha = .94$).

RESULTS

SAMPLE CHARACTERISTICS

As can be seen from the means displayed in Table 1, the two samples did not differ in weight. There was, however, a significant main effect of country on height, $F(1, 744) = 21.27, p < .001$, whereby the Estonian students were on average approximately 2 centimeters taller than their Australian counterparts. As a consequence, the Estonian students ($M = 21.64$) had a significantly lower BMI than the Australian students ($M = 22.36$), $F(1, 744) = 13.35, p < .001$. It should be noted that both sample means fall toward the lower end of the range (20 to 25) considered normal.

BODY FIGURE PREFERENCE RATINGS

A MANOVA with the current, ideal, and attractive figure ratings as the repeated measures variable, and with country and gender as between-subjects variables, indicated a significant overall gender, $F(2, 784) = 50.09, p < .001$, and gender \times question effect, $F(2, 784) = 75.60, p < .001$, but no main effect of country or country \times question interaction. Analyses of the men and women separately showed that for neither Australian nor Estonian men was there any difference in figure preference ratings (both F s < 1). On the other hand, both Australian and Estonian women rated their current figure as significantly larger than their ideal figure and the one they thought most attractive to men: Australian $F(2, 268) = 115.65, p < .001$, Estonian $F(2, 252) = 131.75, p < .001$.

TABLE 1
Means for Body Dissatisfaction, Eating Patterns and Leisure Pursuits for Australian and Estonian Men and Women

	<i>Men</i>		<i>Women</i>		<i>Main Effects/ Interaction</i>
	<i>Australian</i>	<i>Estonian</i>	<i>Australian</i>	<i>Estonian</i>	
<i>Physical characteristics</i>					
Age	20.6	20.9	20.1	20.4	g
Height (centimeters)	180.4	182.4	166.3	168.6	c, g
Weight (kilograms)	77.1	76.4	60.3	59.4	g
Body Mass Index	23.7	22.9	21.8	20.9	c, g
<i>Body figure ratings</i>					
Current	41.2	42.6	40.7	37.6	g, c × g
Ideal	42.0	43.4	32.5	31.0	g, c × g
Attractive	41.4	43.5	31.5	31.3	g, c × g
Opposite sex	36.4	36.9	40.1	39.2	g
<i>Body dissatisfaction</i>					
Discrepancy	-0.7	-0.8	8.2	6.6	g
Perceived weight	4.0	3.9	4.6	4.4	g
Satisfaction	4.0	4.9	3.5	3.8	c, g, c × g
Subjective overweight	-1.5	-2.1	7.2	6.5	g
<i>Dieting behaviour</i>					
Weighing (frequency)	2.2	2.7	2.5	3.1	c, g
Restraint	8.4	9.6	13.1	14.2	c, g
Concern dieting	4.3	4.6	7.4	7.8	g
Weight fluctuation	4.0	5.0	5.7	6.4	c, g
<i>Disordered eating</i>					
Drive for thinness	12.0	11.5	20.8	20.4	g
Bulimia	11.7	12.2	14.6	15.6	g
Body dissatisfaction	24.3	20.1	36.6	32.7	c, g
<i>Leisure</i>					
Sport	1.6	1.6	1.4	1.5	g
Exercise	1.7	1.7	1.7	1.6	
Television (hours)	11.9	12.8	9.6	12.8	c
Read (hours)	8.3	8.2	7.3	11.5	c, c × g
Socialise (hours)	14.0	20.6	14.3	17.8	c
Fashion magazines	1.4	1.7	2.4	2.7	c, g

NOTE: c = main effect ($p < .05$) of country; g = main effect ($p < .05$) of gender; c × g = interaction ($p < .05$) between country and gender.

Each individual question was analysed by a 2×2 ANOVA, the results of which are displayed in Table 1. The significant interactions indicate that, consistent with their lower BMI, the Estonian women's ratings were lower than the Australian women's for all of current, ideal, and attractive figure ratings, whereas the Estonian men's ratings were larger than their Australian counterparts. It is interesting that both Australian and Estonian women's ratings of the figure they thought most attractive to men was lower (respective $M_s = 31.5, 31.3$) than that which men from their country actually said they found most attractive ($M_s = 36.4, 36.9$).

BODY DISSATISFACTION

As can be seen in Table 1, analyses of the four measures of body dissatisfaction indicated significant and substantial gender differences. Women perceived themselves to be heavier,

were less satisfied, and wished themselves to be thinner and to weigh less than men. There was only one country difference, whereby the Estonians rated themselves as more satisfied, $F(1, 680) = 21.89, p < .001$, but this was particularly the case for the men, as indicated by the significant interaction, $F(1, 680) = 6.24, p < .05$.

DIETING BEHAVIOUR

Although similar proportions of men had ever dieted (11.8%, 7.6%), significantly more Australian women (44.5%) had ever dieted than Estonian women (29.8%), $\chi^2(1) = 12.23, p < .001$. There were no country differences for current dieting (men: Australian 3.4%, Estonian 1.9%; women: Australian 15.3%, Estonian, 13.6%). Table 1 shows that Estonians (men and women equally) did, however, score higher on the Weight Fluctuation subscale of the Restraint Scale, $F(1, 630) = 7.77, p < .01$, but not the Concern with Dieting subscale, $F(1, 630) = 1.80, p > .05$. Interestingly, they also weighed themselves more often, $F(1, 800) = 60.54, p < .001$.

DISORDERED EATING

Table 1 also shows that, as is usually found, women scored much more highly than men on all the EDI subscales. There were, however, no significant between-country differences on the Drive for Thinness and Bulimia scale scores. Consistent with the other measures, Body Dissatisfaction was significantly lower for the Estonian sample, $F(1, 783) = 30.55, p < .001$.

It is interesting to note that for the EDI subscales, as for all the other data, the gender differences far outweigh any country differences for either men or women.

LEISURE PURSUITS AND MEDIA EXPOSURE

The means for leisure in Table 1 indicate relatively fewer differences in gender in leisure pursuits, although not surprisingly, women read fashion magazines more often, $F(1, 570) = 167.31, p < .001$, and participated less in organised sport than did men, $F(1, 570) = 8.68, p < .01$. Estonians reported spending more hours watching television, $F(1, 570) = 6.99, p < .01$, and socialising, $F(1, 570) = 15.37, p < .001$, and more often reading fashion magazines, $F(1, 570) = 16.50, p < .001$, and the women spent more time reading in general, interaction $F(1, 570) = 7.47, p < .01$.

RELATIONSHIP BETWEEN BODY CONCERNS AND MEDIA EXPOSURE

Correlational analyses were conducted between dietary restraint and disordered eating symptomatology, and the two measures of exposure to the media (hours spent watching TV, and frequency of fashion magazine reading) for the four groups separately. It was found that the reading of fashion magazines correlated with dietary restraint ($r_s = .23, .19, p_s < .01$) and all the subscales of disordered eating symptomatology, for both Estonian and Australian women ($r_s = .23, .15, .14, p_s < .05$; Australian $r_s = .25, .19, .13, p_s < .05$), but not for men (all $r_s < .11$).

DISCUSSION

This study aimed to compare body image across two countries with very different histories. In particular, as a country from the former Soviet bloc, Estonia does not have a long history of exposure to commercial Western media that depict very thin beauty ideals for women, although exposure to such material is rapidly increasing. However, the consequent prediction that the Estonian women would suffer less body dissatisfaction and disordered eating than their Australian counterparts was largely unsupported. On figure ratings they, like Australian women, choose an ideal figure that is significantly smaller than their current figure. On most other measures of body dissatisfaction, they score similarly, and where there are differences, these are largely accountable for by their lower BMI. In particular, Estonian women score as highly as Australian women on Drive for Thinness and Bulimia tendencies. Recently, Stephens, Schumaker, and Sibiyi (1999) have likewise shown no difference in eating disorder symptoms between Australian and Swazi university students. The results are consistent with what Lee and Lee (2000) describe as “the transnational diffusion of fat concern.”

In the light of their relatively low BMI, the dieting behaviour of the Estonians is somewhat surprising. Estonians weighed themselves more often, and scored as highly as Australians on the Concern for Dieting scale and scored higher on Weight Fluctuation. It needs to be remembered, however, that this latter subscale had relatively low reliability and also a large number of missing values, consistent with the finding of Wardle (1986) with British participants. The data suggest that weight fluctuations here are definitely not a function of past dieting, which was actually lower in the Estonian sample. Instead, the extent of weight fluctuation may reflect differential access to different quantities and types of food in the past, particularly the food restrictions in the 1980s. This suggests that the subscale of Weight Fluctuation may not be a useful measure of (voluntary) dietary restraint in non-Western countries and adds to the conceptual and methodological criticism of this subscale (e.g., Ruderman, 1985). Nevertheless, the country differences were by far outweighed by the gender differences.

In terms of media consumption, the Estonians both watched more television and read more fashion magazines than their Australian counterparts. This perhaps reflects a society hungry for Western media and progress. Nevertheless, the pattern of associations with the body concern variables was the same regardless of country, and again reflected gender rather than country differences.

One potential limitation of the present study is that the results from university students may not generalize to other groups who differ in age or educational level. It is possible that the lack of differences between Estonian and Australian subjects on body satisfaction measures is a function of the fact that college students are relatively similar, even if from very different geographical locations. Future research might usefully address national differences in other more broadly based samples.

In conclusion, the study has demonstrated consistent gender differences in body concerns, but a lack of differences due to country. These gender differences suggest cross-cultural consistency, despite the major historical and cultural differences between the two countries.

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