**Waif Goodbye!**

**Average-size female models promote positive body image and appeal to consumers**

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Abstract

Despite consensus that exposure to media images of thin fashion models is associated with poor body image and disordered eating behaviours, few attempts have been made to enact change in the media. The current study sought to investigate an effective alternative to current media imagery, by exploring the advertising effectiveness of average-size female fashion models, and their impact on the body image of *both* women and men. A sample of 171 women and 120 men were assigned to one of three advertisement conditions: no models, thin models and average-size models. Women and men rated average-size models as equally effective in advertisements as thin and no models. For women with average and high levels of internalisation of cultural beauty ideals, exposure to average-size female models was associated with a significantly more positive body image state in comparison to exposure to thin female models and no models. For men reporting high levels of internalisation, exposure to average-size models was also associated with a more positive body image state in comparison to viewing thin models. These findings suggest that average-size female models can promote positive body image and appeal to consumers.

*Keywords****:*** body image, media, advertising, model size, average-size models

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Exposure to thin female models in the mass media is associated with poor body image and disordered eating behaviours (Anschutz, Engels, Van Leeuwe, & van Strien, 2009; Grabe, Ward, & Hyde, 2008). Researchers (e.g., Halliwell & Dittmar, 2004) and governments (e.g., Australian Government, 2010) have suggested that increasing body size diversity in media imagery is an important step towards promoting positive body image. Despite this, few attempts have been made to enact change in the media. Furthermore, there is limited empirical evidence available to reassure the advertising, fashion and media industries, who arguably have the capacity to affect change in media imagery, that including a more diverse range of body sizes and shapes is an effective and marketable alternative. The present paper contributes to an emerging evidence base which demonstrates the health benefits and marketability of average-size models. Specifically, we investigated the use of average-size female fashion models in advertisements, their marketing potential, and their ability to promote positive body image in an Australian sample of young women and men.

*Body Image and the Mass Media*

In 2008, a nationally representative survey identified body image as the largest concern for female and male Australians aged 15-24 years; more concerning than drugs, family conflict and bullying (Mission Australia, 2008). This is consistent with reports of high rates of poor body image in other Western populations of adolescents and adults (Deeks & McCabe, 2001; Tiggemann, 2004), suggesting that body dissatisfaction continues to be a ‘normative discontent’ across the lifespan. This is a significant public health concern, as poor body image has been associated with psychological and physical health problems including disordered eating behaviours (Stice, 2002), drug and alcohol use (Kanayama, Barry, Hudson, & Pope, 2006), low self-esteem (Tiggemann, 2005) and depression (Brausch & Gutierrez, 2009). Exposure to media images depicting unrealistic ideals of beauty is a recognised risk factor for poor body image (Levine & Murnen, 2009).

Content analyses show that the mass media, including magazines, television and film, have progressively promoted an appearance ideal for women that emphasises thinness (Fouts & Burggraf, 2000; Seifert, 2005). Furthermore, there has been an increasing discrepancy between the body size and shape of women presented in the mass media and those in the general population, whereby models have become thinner and women in the general population have become larger (Spitzer, Henderson, & Zivian, 1999). Not surprisingly, recent meta-analyses have concluded that exposure to media images depicting thin, idealised women is associated with greater body image concerns among women (e.g., Grabe, et al., 2008). Social comparison theory (SCT; Festinger, 1954) is one of the most commonly used theories to explain the impact of thin media imagery on women’s body image.

In the context of body image, SCT (Festinger, 1954) suggests that in the absence of an objective standard people will evaluate their own appearance by comparing themselves to others. An upward comparison occurs when an individual compares herself to someone who is perceived as superior on the relevant construct (Collins, 1996). Fashion models and celebrities are often presented as, and thus often seen as, role models for beauty, attractiveness, and success, and therefore provide likely targets for upward appearance comparisons. However, as the appearances of models and celebrities in media images are often not representative or biologically achievable in reality (Spitzer, et al., 1999), when women make appearance comparisons to media imagery they often feel inadequate and dissatisfied with their own appearance (Tiggemann & McGill, 2004). There is a growing body of research which suggests that adult men may also experience body dissatisfaction when they view media images of thin women.

After exposure to media images portraying muscular male models, men often report greater dissatisfaction with their appearance (Barlett, Vowels, & Saucier, 2008). Although some studies (e.g., Hargreaves & Tiggemann, 2002, 2003) have found no effect on adolescent boys’ ratings of body satisfaction, other studies suggest that adult men may also negatively evaluate their bodies after exposure to idealised, thin female models in the media. For example, after exposing undergraduate men to sexually provocative television advertisements featuring slim women, Lavine, Sweeny, and Wagner (1999) noted an increased discrepancy between men’s actual and ideal body size. Aubrey and Taylor (2009) also found that young men felt significantly more anxious about their own appearance and were more motivated to engage in exercise for appearance reasons after exposure to magazine layouts featuring thin women.

Previous research (e.g., Trampe, Stapel, & Siero, 2007) based on SCT has found that comparison targets merely need to evoke, rather than embody, beauty ideals to become relevant targets for upward appearance comparisons. Specifically, Trampe and colleagues found that even exposure to a drawing of a thin object (i.e., a slender vase) was sufficient to cause poorer appearance self-evaluations among body-dissatisfied women, in comparison to viewing a fat object (i.e., a round vase). This suggests that, for some men, exposure to an image of an attractive, thin female model may be sufficient to remind them of the ideal body shape for men - which also emphasises leanness and is non-representative of men in the general population - and thus lead to increased body dissatisfaction. Alternatively, this effect may have its roots in the well-established “matching principle” (Berscheid, Dion, Walster, & Walster, 1971), which states that couples tend to have roughly equal levels of physical attractiveness. Therefore, if women with unrealistically thin bodies are portrayed as the most beautiful and desirable, men may react with a sense that their own bodies are inadequate to attract such high-status women, leading to anxiety or to motivation to change their own body shape.

Both SCT and the “matching principle” suggest that if women depicted in the media were more similar in body size to women in the general population, exposure to media imagery might not result in negative body image. Consequently, we sought to investigate an effective alternative to current thin media imagery, by exploring the impact of exposure to average-size female fashion models on women’s and men’s body image. By focusing on the effects of replacing images of thin fashion models, rather than on teaching individuals to deconstruct or resist unhealthy images, the current study addresses some of the limitations of current approaches.

*Current Approaches*

Attempts to address mass media influence on body image have largely been targeted at the individual level. A common approach has been the inclusion of media literacy training within body image enhancement and eating disorder prevention programs, with the aim of equipping consumers with skills to critique and deconstruct media images. These programs have largely focused on teenage girls to the exclusion of men and of adult women, and reviews of their effects are promising, but suggest modest, short-term change at best (Levine & Piran, 2004). It has been suggested that this failure to maintain change is, in part, because these interventions do not attempt to change the sociocultural environment directly (Neumark-Sztainer et al., 2006). Consequently, it has become increasingly recognised that individual-level interventions need to be complemented with approaches that directly address the overrepresentation of thin models in fashion and advertising.

In support for such calls for more ecological approaches to addressing the issue of body image, governments in Australia, France and the United Kingdom have recently emphasised the need for changes to current media imagery, including greater regulation, a reduction in, or notification of, the use of airbrushing, and an increase in models’ body size and shape diversity (e.g. Australian Government, 2010; Boyer et al., 2009; Liberal Democrats, 2009). These recommendations present an important shift, from the assumption that it is the responsibility of every individual consumer of the media to learn how to resist unhealthy images, to the view that the media, fashion and advertising industries have a responsibility to promote positive body image. Underlying these recommendations is the assumption that the presentation of a diverse range of body sizes and shapes as desirable will lead to improvements in body image. Until recently, however, few studies have investigated whether or not changes in the body size of models depicted in the media can result in more positive body image. The studies that have been conducted with women to date, however, indicate that attractive, average-size models may provide a healthy and marketable alternative to current media images (Dittmar & Howard, 2004a, 2004b; Halliwell & Dittmar, 2004; Halliwell, Dittmar, & Howe, 2005).

*Average-size Model Research*

A series of studies in the United Kingdom investigated the impact of print advertisements displaying attractive, average-size female models on women’s body image (Dittmar & Howard, 2004a, 2004b; Halliwell & Dittmar, 2004; Halliwell, et al., 2005). In each of these studies the authors exposed women to advertisements for fragrance products, which featured either no models, thin models, or average-size models, with the images of the average-size models created by digitally stretching the bodies of the thin models. Pilot research indicated that the thin and average-size models were rated by participants as equally attractive, so that any differences post-exposure could be attributed to the differing body sizes of the models.

These studies consistently found that exposure to average-size female models was associated with significantly lower levels of body-focused anxiety among women compared to exposure to advertisements displaying thin female models (Dittmar & Howard, 2004a, 2004b; Halliwell & Dittmar, 2004; Halliwell, et al., 2005). Furthermore, some women experience a “relief” effect, feeling more positive about their bodies after viewing average-size models in comparison to viewing no models at all (Dittmar & Howard, 2004a, 2004b; Halliwell, et al., 2005). However, the extent to which the women internalised and valued current cultural ideals of beauty moderated the impact of exposure to models of different body sizes. Specifically, only women who reported high levels of internalisation were affected by exposure to attractive models of differing body sizes. Nevertheless, this research suggests that using average-size models may present an effective public health intervention to promote body image. However, to affect change in the media it is important that research also addresses the concerns of the gatekeepers who have the ability to change media content.

Despite there being no published empirical evidence to support their contention, the fashion and advertising industries, who largely decide what images are displayed in the media, often assert that models more representative of the general population are not used because ‘thinness sells’ and there is no consumer demand for larger models (e.g. Connolly, 2009) However, most of the average-size model studies discussed above (Dittmar & Howard, 2004a; Halliwell & Dittmar, 2004; Halliwell, et al., 2005) also asked participants about their reactions to the advertisements and intent to purchase the product advertised, constructs that are often used by market researchers to provide an indirect measure of advertisement effectiveness (Joyce, 1998). Contrary to the “thinness sells” assertion, advertisements depicting average-size models were rated as positively on these criteria as those displaying thin models. This empirical research suggests that when determining consumer appeal and the perceived effectiveness of an advertisement, model body size may not be important (Halliwell & Dittmar, 2004).

*The Current Study*

 To date, average-size model research has largely been conducted by one research group in the United Kingdom, and the generalisability of these findings to other countries is unknown. Also, Dittmar, Halliwell and colleagues used the same commercially produced photograph of a thin model in both conditions, digitally altering her appearance in the “average-size” condition to make her look larger. While this allowed them to match the conditions for model pose, styling and facial expression, it may be that comparing commercially produced photographs of fashion models who are actually thin or average in body size would provide a more valid and realistic comparison. Finally, the potential for average-size female models to influence men’s body image has not been explored, and their marketability has only been investigated for fragrance products.

The aim of the current study, therefore, was to extend the evidence base for using average-size models in the media by investigating their potential to promote positive body and appeal to consumers in Australia, with a sample of young women *and* men. Specifically, we compared the use of thin and average-size professional fashion models, or no models, in advertisements for clothing and beauty products, and investigated both their advertising appeal, and their effect on body image.

Based on previous research findings, we predicted that the advertisements featuring average-size models would be rated as equally effective as those with thin models or with no models. Further, we predicted that both women and men would report a more positive body image state after exposure to average-size models, but that this effect would be moderated by the extent to which they internalise current cultural beauty ideals. Specifically, women and men who scored highly on our measure of internalisation would exhibit a more positive body image state after exposure to average-size models, but that women and men with low levels of internalisation would not.

Method

*Participants and Design*

We recruited 291 women (*n*=171) and men (*n*=120) aged 17-25 years to this study. Participants were from diverse academic programs, but were all enrolled in a first-year psychology course at a large Australian university, and received course credit for their participation. Ethical approval to conduct the study was granted by the Human Research Ethics Committee at The University of Queensland. The mean age was 18.5 years (*SD*=1.27), among the women and 18.9 years (*SD*=1.44) among the men, whilst mean BMI was 21.35 (*SD*=3.29) and 23.37 (*SD*=3.60) respectively. The majority of the sample described their ethnicity as “White Australian” (87% of the women and 68% of the men); fewer women than men identified as “Asian Australian” (8%, 14% respectively), and 5% of women and 18% of men identified as “other”. While this was a convenience sample, it also reflects the age group most likely to purchase Australian fashion, lifestyle and fitness magazines (e.g. *Vogue*, *GQ*) (Roy Morgan Research, 2007, 2008). Indeed, 69% of the women and 43% of the men who participated in this study reported that every month they frequently read fashion, lifestyle and/or fitness magazines.

Participants were assigned to one of three conditions; control (viewed advertisements featuring no models– 59 women, 38 men), thin model (viewed advertisements featuring thin models– 59 women, 40 men) and average-size model (viewed advertisements featuring average-size models– 53 women, 42 men). In an attempt to balance the number of participants in each condition, a restricted randomisation procedure with minimisation was used to allocate participants. This method ensures moderately equal cell sizes and is considered methodologically equivalent to randomisation (Moher, Schulz, & Altman, 2001).

*Materials*

 For each condition, nine advertisements were constructed using photo editing software JASC Paint Shop Pro 8. The advertisements featured products frequently advertised in women’s magazines, with four advertisements for clothing (e.g. dresses and underwear) and five for beauty products (e.g. perfume and skincare). To ensure that only the presence and body size of the models varied between the advertisements in each condition, nine basic templates of layout, design and logo were created. For the control condition, photographs of products (e.g. perfume bottles, lingerie) were superimposed on to the nine advertisement templates. For the thin model condition, photographs of traditional fashion models (Australian clothing size 8-10[[2]](#footnote-2)) were superimposed on to the templates. For the average-size model condition, photographs of ‘plus-size’ models (Australian clothing size 14-16[[3]](#footnote-3)) were superimposed on to the same templates. Effort was taken to match the thin and average-size models across advertisements on pose, facial expression, and clothing style and colour.

To enhance the similarity of the advertisements to genuine magazine advertisements, the models featured in the advertisements were professional models and their photographs and measurements were sourced from the websites of several leading Australian modelling agencies (e.g. *Chadwick Models, Scene Model Management, Bella Model Management* and *BGM Models*). The average measurements of the models in the thin condition (Australian dress size=8-10, bust= 84.67cm/33.33 inches, waist= 61.40cm/24.14 inches, hips=88.05cm/34.67 inches) were comparable to the average Australian fashion model[[4]](#footnote-4). The average measurements of the models used in the average-size condition (Australian dress size=14-16, bust=101.33cm/39.74 inches, waist=83.16cm/32.74 inches, hips=107.79cm/42.43 inches) were comparable to the average-sized Australian woman (Kennedy, 2006; Women's Health Australia, 2000). Copies of the advertisements can be obtained by contacting the first author.

*Pilot Study.* As Halliwell and Dittmar (2004) pointed out, some of the earliest average-size model research (e.g., Irving, 1990) confounded model attractiveness with body size, such that the average-size models used in these studies were perceived by participants as less attractive than the thin models. Consequently, we conducted a pilot study to check that (a) the manipulation of model body size between advertisement sets was effective (b) model attractiveness was not confounded with body size, and (c) the advertisements were perceived as similar to real magazine advertisements. A total of 87 Australian university students, 43 women and 44 men aged 18-25 years (*M=* 20.75*, SD*=1.95), participated in the pilot study.

Participants were shown one of two printed booklets containing either the nine thin model advertisements (*n*=43) or the nine average-size model advertisements (*n*=44). They rated each advertisement on the following 3 items, each with a 6-point Likert scale; (1)“How would you rate the body size of the model in the advertisement?” (1=very thin, 6= very curvaceous), (2) “How would you rate the attractiveness of the model in the advertisement?” (1= very unattractive, 6= very attractive), (3) “How similar is this advertisement to those you would find in women’s fashion magazines?” (1=very dissimilar, 6= very similar). Mean ratings of body size, attractiveness, and similarity to advertisements in real magazines were calculated for the thin model advertisements and the average-size model advertisements.

A one-way between groups MANOVA showed a significant difference between the thin and average-size model advertisements on the combined dependent variables, *Wilks’ Λ*=0.33, *F*(3,83) = 57.57, *p<.001*, partial η2=0.68. There was a significant main effect for condition on body size, *F*(1,85) = 104.95, *p<.001*, whereby the thin models (*M*=2.65, *SD*=0.83) were rated as significantly thinner than the average-size models (*M*=4.17, *SD*=0.51). There was, however, no main effect for attractiveness, *F*(1,85) = 0.29, *p=.59*, indicating that the two sets of models did not differ in rated attractiveness (thin *M*=3.96, *SD*=.65; average-size *M*=3.89, *SD*=.70). Finally, while both the thin (*M*=4.42, *SD*=0.79) and average-size advertisements (*M*=3.01, *SD*=0.83) were rated as moderately similar to advertisements seen in women’s fashion magazines, there was a significant main effect for similarity, *F*(1,85)=65.77, *p<.001,* indicating that the thin model advertisements were rated as significantly more similar*.* This is consistent with media content analyses (e.g. Sypeck, Gray, & Ahrens, 2004), which demonstrate that advertisements in women’s fashion magazines seldom use average-size models.

*Measures*

*Advertising effectiveness.* A 5-item measure, developed by Halliwell and Dittmar (2004), assessing participants’ general evaluations of the advertisements and the product, and their intention to purchase the products advertised was administered after exposure to each advertisement (e.g., “If this brand cost the same as the brand(s) of clothing that you normally buy, how likely would you be to purchase it on your next shopping trip?”*)*. An overall advertising effectiveness score was calculated by averaging scores for the 5 items across the nine advertisements, with higher scores reflecting greater perceived effectiveness. Cronbach’s *α* for this sample was .89 for women and .93 for men.

*Body image state.* To measure participants’ body image state after exposure to the advertisements, the Body Image States Scale (BISS; Cash, Fleming, Alindogan, Steadman, & Whitehead, 2002) was administered. The BISS (6 items; e.g. “Right now I feel extremely dissatisfied with my appearance”*)* is suitable for administration to both women and men, and higher scores indicate a more positive body image state. Cronbach’s *α* for this sample was .85 for women and .82 for men.

*Internalisation of cultural beauty ideals.* To assess participants’ level of internalisation of cultural ideals of beauty the internalisation-general subscale of the Sociocultural Attitudes Towards Appearance Scale-3 (SATAQ-3; Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2004) was administered. The internalisation subscale (9 items; e.g. “I compare my appearance to the appearance of TV and movie stars”*)* measures how much an individual compares their own body to people on television and in magazines and film, and how much they wish to look like people in the media. Whilst primarily used with women, the internalisation-general subscale of the SATAQ-3 is also a suitable measure for men (Karazsia & Crowther, 2008), with higher scores indicating greater internalisation of current beauty ideals. Cronbach’s *α* for this sample was .93 for women and .88 for men.

*Demographic questions.* Participants were asked to provide their age, height, weight, and self-identified ethnic group. Questions regarding types of, and time each month spent reading, magazines were also included.

 *Open-ended questions.* Participants were also invited to respond to open-ended questions about media images and average-size models; a qualitative analysis of responses to these questions is in preparation for separate publication.

*Procedure*

Participants signed up to an online study called “Advertising and the Media” and were informed that it investigated the effectiveness of advertisements. Upon logging on to the study website, participants were assigned using restricted randomisation to one of the three advertisement conditions (control, thin model, average-size model). An advertisement was then displayed with instructions for the participant to view the advertisement carefully. After 30 seconds, participants were asked to type responses to four open ended questions to ensure that they were attending to the advertisement (e.g., “please describe the advertisement”, “please describe the model in the advertisement”). Participants then completed the advertising effectiveness measure. This process was repeated for each of the eight remaining advertisements. Immediately following exposure to the series of advertisements, participants completed the body image and internalisation measures, and provided demographic data.

Results

*Impact of Model’s Body Size on Women’s Ratings of Advertisement Effectiveness*

A one-way analysis of variance was conducted to examine the impact of model’s body size on women’s ratings of advertisement effectiveness. As hypothesised, there was no effect of advertisement condition on ratings of advertising effectiveness (*F*(*2,140*) = 1.59, *p=.207*). Women rated advertisements featuring average-size models (*M*=15.56, *SD*=2.23) as effective as those featuring no models (*M*=16.32, *SD*=2.29) and thin models (*M*=16.28, *SD*=2.28).

*Impact of Model’s Body Size on Women’s Body Image*

*Regression Analysis Overview.* To investigate the impact of advertisement condition on women’s body image state, and the potential moderating effects of internalisation of cultural beauty ideals, a hierarchical moderated multiple regression analysis was conducted. Body image state was the criterion variable and BMI was included in the model as a covariate as it was significantly correlated with body image state. Using dummy coding, two advertisement contrasts were created to allow for the comparison of body image state between women exposed to the different advertisement conditions. The average-size model condition was nominated as the comparison group, to allow for the comparison between exposure to average-size models and exposure to no models and thin models respectively. The first dummy variable contrasted women in the average-size model condition to those in the control (no model) condition, and the second dummy variable contrasted women in the average-size model condition to those in thin model condition. Mean-centred BMI scores were entered at Step 1 of the regression analyses. The two advertisement contrasts were entered at Step 2, followed by mean-centred scores for internalisation at Step 3. Finally, to explore the moderating effects of internalisation, two interaction terms for each of the advertisement condition contrasts and internalisation were entered at Step 4.

*Results of the Regression Analyses.* Table 1 provides a summary of the regression analyses, including change statistics for each step, and beta coefficients for each predictor from the final model. As expected, at Step 1 BMI was significantly associated with women’s body image. The addition of the advertisement contrasts at Step 2 was significant, indicating that exposure to the advertisements accounted for further variance in body image, as did internalisation at Step 3. The significance of the addition of the interaction terms in Step 4 indicated that, as hypothesised, level of internalisation of cultural beauty ideals significantly moderated the impact of advertisement type on body image. The final model, with all predictors and interaction terms included, accounted for a significant proportion of the total variation in women’s body image (*R2*= .28, *adjusted R2* =.26, *F(6, 159)*=10.45, *p*<.001).

In the final model, after controlling for all other variables, BMI remained significantly associated with body image state, however, internalisation did not. Specifically, higher BMI was associated with less positive body image, although this was a relatively small effect. The significance of the coefficient for the average-size model vs. no model advertisement contrast in the final model indicated that there was a significant difference in body image state between those in the control and average-size model conditions. As predicted, women exposed to advertisements featuring average-size models (*M*=5.91) had a more positive body image state compared to those exposed to no models (*M*=5.11). However, this effect was moderated by level of internalisation of cultural beauty ideals; there was a small but significant interaction between the average-size vs. control advertisement contrast and internalisation. The significant coefficient for the average-size model vs. thin model advertisement contrast indicated that there was a significant difference in body image state between those in the thin model and average-size model conditions. As predicted, women exposed to average-size models felt significantly better about their bodies compared to those exposed to thin models (*M*=4.80).This effect, however, again must be interpreted in the context ofthe significant interaction between this advertisement contrast and internalisation, which again indicated that level of internalisation of cultural beauty ideals moderated the effect of exposure.

*Simple Slopes Analyses.* To explore the moderating effect of internalisation of beauty ideals,in accordance with Jaccard and Turrisi (2003) we conducted simple slopes analyses on the significant interactions between the advertisement contrasts and internalisation. As internalisation was mean-centred in the regression analyses above, the mean differences (*β*) in body image state reported in Table 1 indicate the difference in body image between women exposed to the average-size model, no model and thin model conditions at the mean level of internalisation for the current sample of women (*M*=3.35, *SD*= .93). In the simple slopes analyseswe also explored the mean differences in women’s body image state scores between conditions at low (-1SD) and high levels (+1SD) of internalisation (see Figure 1).

The simple slopes analysis for low internalisation (-1SD, 2.42) showed that the coefficient for the average-size model vs. control advertisement contrast was not significant (*β*=-.10, *t*=-0.90, *p=*.372), and neither was the coefficient for the average-size vs. thin model advertisement contrast (*β*=-.14, *t*=-1.15, *p*=.252). Consequently, at low levels of internalisation, there was no significant difference in body image state between women exposed to average-size models (*M*=5.94) and those exposed to no models (*M*=5.64) or thin models (*M*=5.53). In sum, as hypothesised, for women who have low levels of internalisation, model’s body size did not influence body image.

 The simple slopes analysis for high internalisation (+1SD, 4.28) showed a significant coefficient for the average-size vs. no model contrast (*β*=-.43, *t*=-3.59, *p<.001*), and for the average-size vs. thin advertisement contrast (*β*=-.60, *t*=-5.59, *p<.001*). Specifically, at high levels of internalisation, women who saw average-size models (*M*=5.89) felt significantly better about their appearance than those exposed to no models (*M*=4.60) and those exposed to thin models (*M*=4.09). Collectively, these results suggest that the effect of model’s body size on women’s body image was moderated by internalisation of cultural beauty ideals.

*Impact of Model’s Body Size on Men’s Ratings of Advertisement Effectiveness*

A one-way analysis of variance was conducted to examine the impact of model’s body size on men’s ratings of advertisement effectiveness. As expected, there was no significant difference between advertisement conditions on ratings of advertising effectiveness (*F*(*2,92*)=1.04, *p=.357*). Specifically, men rated advertisements featuring average-size models (*M*=14.45, *SD*=2.51) as effective as those featuring no models (*M*=14.96, *SD*=2.65) and thin models (*M*=15.48, *SD*=3.49).

*Impact of Model’s Body Size on Men’s Body Image State.*

*Regression Analysis Overview.* To investigate the impact of model’s body size on men’s body image state, and the potential moderating effects of internalisation of cultural beauty ideals, another hierarchical moderated multiple regression analysis was conducted. The regression model was structured in the same way as the analysis for women, and included the same predictors.

*Results of the Regression Analyses.* Table 2 provides a summary of the regression analyses, including change statistics for each step, and beta coefficients for each predictor from the final model. As expected, at Step 1 BMI was significantly associated with men’s body image. After controlling for BMI, exposure to the advertisements did not significantly add to the prediction of body image at Step 2, nor did internalisation at Step 3. However, the addition of the interaction terms at Step 4 significantly accounted for further variance in body image. This indicated that internalisation significantly moderated the impact of model’s body size on men’s body image state. The final model, with all predictors and interaction terms included, explained a significant proportion of the total variance in men’s body image (*R2*=.19, *adjusted R2* =.14, *F*(6, 106)=4.14, *p*<.01).

In the final model, BMI remained significantly associated with men’s body image, such that higher BMI was associated with less positive body image. The coefficient for the average-size model vs. no model advertisement contrast indicated that there was no significant difference in body image state between men exposed to average-size models (*M*=6.14) and those who saw no models (*M*=5.94) at average levels of internalisation (*M*=2.89). Furthermore, the main effect of internalisation, and the interaction between the average-size vs. control advertisement contrast and internalisation was non-significant. The coefficient for the average-size vs. thin model advertisement contrast also indicated that there was no significant difference in body image state between those in the average-size and thin model (*M*=5.86) conditions. However, this must be interpreted in the context of significant interaction between the average-size vs. thin advertisement contrast and internalisation, which indicated that, as predicted, level of internalisation of cultural beauty ideals moderated the effect of exposure to female models on men’s body image.

 *Simple Slopes Analyses*. To follow up the significant interaction, we again conducted simple slopes analyses (see Figure 2). The results in Table 2 indicate the difference in body image between men exposed to the average-size model, no model and thin model conditions at the mean level of internalisation for the current sample of men (*M*=2.89, *SD*= .82). Therefore, as for the women, the simple slopes analyses were structured to examine the mean difference in body image state scores between men in the average-size and thin model conditions at low (-1SD, 2.07) and high (+1SD, 3.71) levels of internalisation of current beauty ideals.

The simple slopes analysis for low levels of internalisation indicated that the mean difference in body image state scores between men exposed to the average-size and thin model conditions was not significant (*β*=.19, *t*=1.34, *p*=.184). Consequently, at low levels of internalisation there was no significant difference in body image state between men exposed to average-size models (*M*=5.73) and those exposed to thin models (*M*=6.28). However, at high levels of internalisation there was a significant difference (*β*=-.38, *t*=-2.79, *p*<.01), such that men exposed to average-size models (*M*=6.55) felt significantly better about their bodies compared to those exposed to thin models (*M*=5.45). Collectively, these results suggest that the effect of model exposure on men’s body image was also moderated by internalisation of cultural beauty ideals.

Discussion

 The aim of this study was to examine the impact of exposure to advertisements featuring average-size female fashion models on Australian women’s and men’s perceived advertising effectiveness and body image. Consistent with previous average-size model research in the United Kingdom (Dittmar & Howard, 2004a; Halliwell & Dittmar, 2004; Halliwell, et al., 2005), and contradicting widespread views in the fashion industry (Connolly, 2009), women and men both reacted as positively to advertisements for clothing and beauty products featuring average-size models as they did to those featuring thin models and no models. These findings directly challenge the ‘thinness sells’ argument that is frequently used as a reason for excluding average-size female models from fashion and advertising. Instead, they suggest that average-size models provide a marketable alternative to current media imagery, and that they appeal to both female and male consumers.

 In line with our predictions, exposure to average-size models was also associated with more positive body image among young women. This effect was moderated by level of internalisation of cultural ideals of beauty. Amongst women with average or high levels of internalisation, exposure to average-size female models was associated with more positive body image in comparison to viewing thin models or no models. Amongst women with low levels of internalisation, however, there was no significant difference in body image state between the conditions. While the current study does not test the underlying processes responsible for these effects, the null findings for women with low levels of internalisation are consistent with the view that women who do not internalise cultural beauty ideals are also less likely to make appearance-related social comparisons to models in media imagery (Dittmar & Howard, 2004b).

The findings for women in the current study are congruent with previous average-size model research (Dittmar & Howard, 2004a, 2004b; Halliwell & Dittmar, 2004; Halliwell, et al., 2005). They suggest that, for those women who value and internalise cultural beauty ideals, average-size models provide a healthy alternative to thin models in advertising. Indeed, women who saw average-size models also felt better about their bodies than those who saw no models at all, suggesting that viewing average-size models in advertisements can provide a positive “relief” effect for some women.

 A major innovation of the current study was the inclusion of a male sample to investigate the impact of average-size female models on men’s body image. In accordance with our hypothesis, high-internalising men who viewed average-size models reported a more positive body image state than those who viewed thin models, and a similar body image to those who viewed no models. However, there was no effect among men who reported low or average levels of internalisation. This null finding for men with average levels of internalisation, and the absence of a “relief” effect for high internalisers, suggests that the positive impact of average-size female models on men’s body image may not be as strong as it is for women. Nevertheless, taken together these findings demonstrate that, for some men, exposure to average-size female models promotes positive body image.

 This study takes an ecological approach to promoting positive body image. While most other research that aims to address the influence of the mass media on body image has focused on the effects of educating individual consumers to deconstruct advertisements, we focus on the effect and plausibility of changing the advertisements themselves. We, and other body image researchers (e.g., Neumark-Sztainer, et al., 2006), argue that, while individual-level research has produced some promising results, a continued reliance on training the individual to resist unhealthy images, rather than making environmental changes that reduce the prevalence of such images, is likely to have limited long-term success.

In combination with the previous average-size model literature, our findings also address a major barrier to promoting size diversity in media imagery, by beginning to address concerns voiced by the media industry in regards to the marketing acceptability of average-sized models. Additionally, we used images of genuine average-size professional fashion models, rather than artificial images of digitally stretched, thin models. This serves to enhance the similarity of the advertisements used in the current study to those in real magazines, and thus increases the likelihood that these effects will translate to real world advertisements. Finally, the inclusion of advertisements for clothing *and* beauty products extends past average-size model research, which has primarily focused on advertisements for fragrance products.

 It should be stressed, however, that there are aspects of the present study which mean that the findings may not necessarily generalise entirely to naturalistic settings. Firstly, we asked participants to view advertisements online in the context of a research project, to attend to them for 30 seconds, and to engage in appearance processing by describing the model presented in each advertisement. In reality, consumers’ attention to advertisements and models as they browse magazines and watch television is likely to be more fleeting. Consequently, the influence of model body size, and average-size models more specifically, may not be as strong in a real world setting. However, Want (2009) has suggested that appearance comparisons are relatively automatic and tend to occur regardless of explicit instructions to examine or describe stimuli, suggesting that issues of generalisability may be less pronounced. Furthermore, the fact that the participants were not alerted to the purpose of the study or sensitised to issues of body shape and image – for example by the use of a pre-test measure of body dissatisfaction – may enhance the generalisability of our findings.

Secondly, it is not clear whether our measure of advertising effectiveness would reflect true purchasing behaviour. However, the measure used in the current study parallels those often used by market researchers to evaluate advertising campaigns (Joyce, 1998). Lastly, our focus on university students means that our sample is likely to be biased towards young adults with a high socioeconomic status. However, there is no relationship between socioeconomic status and the prevalence of eating disorders or body dissatisfaction (Gard & Freeman, 1998), and thus this bias is unlikely to affect the generalisability of our findings.

 There is scope for considerable further research in this area. For example, most of the average-size model research thus far has focused on print advertisements. However, two recent studies investigating the impact of exposure to more average-sized women on television (Anschutz, Engels, Becker, & van Strien, 2008, 2009) provide an interesting direction for future average-size model research. Also, while in its infancy, research into muscular male models in media imagery suggests such that exposure to such images has a negative impact on men’s body image (see Barlett, et al., 2008). One study has addressed this by systematically examining the impact of average-size male fashion models on body image (Diedrichs & Lee, 2010). While it was found that average-size male models also promote positive body image and appeal to consumers, further replication and exploration of the impact of average-size male models is needed. Finally, there is also a need for future research to look towards investigating and promoting greater diversity in age, race, and gender roles in the mass media, as they are also narrowly represented in current media imagery (Mastro & Stern, 2003; Signorielli & Bacue, 1999).

In conclusion, this study contributes to an emerging evidence base for the health benefits and marketability of average-size models in media imagery. Our findings corroborate past research and suggest that average-size female models have the capacity to improve the body image of women and men, without reducing the marketing appeal of advertisements to consumers. This research has the potential to inform and support policy and government recommendations regarding size diversity in the mass media.

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Table 1

*Women: Hierarchical moderated regression analyses examining the impact of model size and beauty ideal internalisation on women’s body image.*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Step and variable* | *b* | *β* | *t* | *sr2* | *R2* | *AdjR2* | ∆*R2* | *df* | ∆F |
| Step 1 BMI | -.09 | -.20 | -2.95\*\* | .04 | .04 | .03 | .04 | 1,164 | 6.12\* |
| Step 2 Average vs. Control  Contrast (ACC) |  -.80 |  -.27 | -3.27\*\*\* | .05 | .15 | .13 | .11 | 2, 162 | 10.55\*\*\* |
|  Average vs. Thin  Contrast (ATC) | -1.11 | -.37 | -4.59\*\*\* | .10 |  |  |  |  |  |
| Step 3 Internalisation | -.03 | -.02 | -.15 | .00 | .25 | .23 | .10. | 1, 161 | 20.83\*\*\* |
| Step 4 ACC x  Internalisation ATC x  Internalisation |  -.53 -.74 | -.20-.30 |  -1.98\* -2.86\*\* | .02.04 | .28 | .26 | .04 | 2,159 | 4.22\* |

\* *p*<.05, \*\**p*<.01, \*\*\**p*<.001.. Note. Reported *B*, *β*, *t* , *sr2* are from the final model.

Table 2

*Men: Hierarchical moderated regression analyses examining the impact of model size and beauty ideal internalisation on men’s body image.*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Step and variable* | *b* | *β* | *t* | *sr2* | *R2* | *AdjR2* | ∆*R2* | *df* | ∆F |
| Step 1 BMI | -0.12 | -0.31 | -3.49\*\*\* | .09 | .11 | .10 | .11 | 1,111 | 14.03\*\*\* |
| Step 2 Average vs. Control  Contrast (ACC) |  -0.20 |  0.07 | -0.69 | .00 | .12 | .10 | .01 | 2, 109 | .58 |
|  Average vs. Thin  Contrast (ATC) | -0.28 | -0.10 | -0.95 | .01 |  |  |  |  |  |
| Step 3 Internalisation | 0.49 | 0.30 | 2.12\* | .03 | .12 | .09 | .00. | 1, 108 | .02 |
| Step 4 ACC x  Internalisation ATC x  Internalisation | -0.65 -.1.00 | -0.20-.36 |  -1.74 -2.95\*\* | .02.07 | .19 | .14 | .07 | 2,106 | 4.49\*\* |

\**p*<.05. \*\**p*<.01. \*\*\**p*<.001. Note. Reported *b*, *β*, *t, sr2* are from the final model.

*Figure 1.* Simple slopes analyses demonstrating the moderating impact of internalisation of cultural beauty ideals on the effect of model body size on women’s body image state.

*Figure 2.* Simple slopes analyses demonstrating the moderating impact of internalisation of cultural beauty ideals on the effect of model body size on men’s body image state.

1. \* Corresponding author: phillippa.diedrichs@uwe.ac.uk. [↑](#footnote-ref-1)
2. An Australian size 8-10 is approximately equivalent to UK 10-12, US 6-8, European 38-40. [↑](#footnote-ref-2)
3. An Australian size 14-16 is approximately equivalent to UK 16-18, US 12-14, European 44-46. [↑](#footnote-ref-3)
4. Consistent with the method used by Halliwell and Dittmar (2004), measurements of the average Australian fashion model were calculated by averaging the bust, waist and hip measurements of the first twenty female models featured on the website of a leading Australian modelling agency, *Chadwick Models*. The average measurements were; dress size=8-10, bust= 83.52cm/32.88 inches, waist= 62.81cm/24.73 inches, hips = 88.60cm /34.88 inches. [↑](#footnote-ref-4)