

## **Annex 2. Evidence for CAP (Committee of Advertising Practice)**

This document gives citations and abstracts of primary research studies examining the link between exposure to idealised media images and individuals' body image and related behaviours. It is divided into two parts:

- A. Studies that show a link between media exposure and lower body satisfaction or problematic behaviour, and
- B. Studies that show no link or positive effects.<sup>1</sup>

Research on adults and children is presented in different sections, given the enhanced need to protect the welfare of children under 16 years old.

Within each section, studies are presented according to the method that they have used, to facilitate an assessment of the scientific evidence: Meta-analytic studies, experimental studies, correlational studies and prospective/longitudinal studies.

For exposure experiments, the type of stimulus material is specified, in order to identify studies which have used advertisements showing idealised models, rather than non-advertisement images. Given CAP's primary interest in the effects of TV or magazine advertisements, exposure experiments using advertisements are listed first.

A final section provides a brief selection of the most significant reviews and books on media and body image.

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<sup>1</sup> In the very rare case, where a study shows negative effects for one group of respondents, and positive effects for another, it is listed in both sections.

# A. Research demonstrating negative effects from media exposure (for all or a subsample of research respondents)

## Research on Adults

### 1. Meta-analytic studies

Meta-analysis is a higher order method of data analysis, in which the magnitude of the relationship between media exposure to perfect body ideal and body dissatisfaction is recorded for each empirical study containing appropriate quantitative measures, and then aggregated across all studies. This provides an overall measure of the strength of association between constructs across all available studies, documenting that exposure to perfect body ideals in the media has a negative effect on body satisfaction, both in women and men.

**Barlett, C.P., Vowels, C.L., & Saucier, D.A. (2008). Meta-analyses of the effects of media images on men's body image concerns. *Journal of Social and Clinical Psychology, 27*, 279-310.**

Two meta-analyses were conducted to determine the extent to which pressure from the mass media to conform to the muscular "ideal" male body affects men's self-images (i.e., body satisfaction, body esteem, and self-esteem). A total of 25 studies contributing 93 effect sizes were included in two meta-analyses, which revealed that pressure from the mass media was significantly related to men feeling worse about their own bodies. The effect size from the meta-analysis of the correlational studies (Study 1) was significantly negative,  $d = -0.19$ ,  $p < 0.001$ . The effect size from the meta-analysis of the experimental studies (Study 2) was also significantly negative,  $d = -0.22$ ,  $p < 0.0001$ . Results from both Study 1 and Study 2 suggest that as men felt pressure from the mass media (in correlational and experimental designs) they felt worse about their bodies. Results showed that pressure from the mass media was related to body satisfaction, body esteem, self-esteem, psychological disorders (e.g., depression), and behavioural outcomes (e.g., excessive exercising).

**Blond, A. (2008). Impacts of exposure to images of ideal bodies on male body dissatisfaction: A review. *Body Image, 5*, 244-250.**

Research suggests that young men's body dissatisfaction increases when they see images of attractive muscular men. This article provides the first extensive review of experimental studies exposing men to advertisements or commercials featuring idealized male bodies. Impacts on body dissatisfaction were evaluated by calculating and analyzing effect sizes from 15 studies. The effect sizes indicate that exposure to images of idealized male bodies has a small but statistically significant negative impact on men's body dissatisfaction. Three studies suggest that young men who are dissatisfied with their bodies are at increased risk for negative self-evaluations when exposed to idealized images. Two studies suggest that men who are satisfied with their bodies may be protected against negative impacts from seeing such images.

**Grabe, S., Ward, L.M., & Hyde, J.S. (2008). The role of the media in body image concerns among women: A meta-analysis of experimental and correlational studies. *Psychological Bulletin, 134*, 460-476.**

Research suggests that exposure to mass media depicting the thin-ideal body may be linked to body image disturbance in women. This meta-analysis examined experimental and correlational studies testing the links between media exposure to women's body dissatisfaction, internalization of the thin ideal, and eating behaviours and beliefs with a sample of 77 studies that yielded 141 effect sizes. The mean effect sizes were small to moderate ( $d_s$  = -.28, -.39, and -.30, respectively). Effects for some outcome variables were moderated by publication year and study design. The findings support the notion that exposure to media images depicting the thin-ideal body is related to body image concerns for women.

**Groesz, L.M., Levine, M.P., & Murnen, S.K. (2002). The effect of experimental presentation of thin media images on body dissatisfaction: A meta-analytic review. *International Journal of Eating Disorders*, 31, 1-16.**

*Objective*

The effect of experimental manipulations of the thin beauty ideal, as portrayed in the mass media, on female body image was evaluated using meta-analysis.

*Method*

Data from 25 studies (43 effect sizes) were used to examine the main effect of mass media images of the slender ideal, as well as the moderating effects of pre-existing body image problems, the age of the participants, the number of stimulus presentations, and the type of research design.

*Results*

Body image was significantly more negative after viewing thin media images than after viewing images of either average size models, plus size models, or inanimate objects. This effect was stronger for between-subjects designs, participants less than 19 years of age, and for participants who are vulnerable to activation of a thinness schema.

*Conclusion*

Results support the sociocultural perspective that mass media promulgate a slender ideal that elicits body dissatisfaction. Implications for prevention and research on social comparison processes are considered.

**Want, S.C. (2009). Meta-analytic moderators of the experimental exposure to media portrayals of women on female appearance satisfaction: Social comparisons as automatic processes. *Body Image*, 6, 257-269.**

Experimental exposure to idealized media portrayals of women is thought to induce social comparisons in female viewers and thereby to be generally detrimental to female viewers' satisfaction with their own appearance. Through meta-analysis, the present paper examines the impact of moderators of this effect, some identified and updated from a prior meta-analysis and some that have hitherto received little attention. Participants' pre-existing appearance concerns and the processing instructions participants were given when exposed to media portrayals were found to significantly moderate effect sizes. With regard to processing instructions, a novel and counter-intuitive pattern was revealed; effect sizes were smallest when participants were instructed to focus on the appearance of women in media portrayals, and largest when participants processed the portrayals on a distracting, non-appearance dimension. These results are interpreted through a framework that suggests that social comparisons are automatic processes, the effects of which can be modified through conscious processing.

## 2. Experimental studies

Experiments are capable of demonstrating that exposure to idealised models is a direct and immediate cause of body dissatisfaction, typically by comparing groups of respondents who have been exposed either to models or to neutral images.

### Advertisements as stimuli

#### Women respondents

**Anschutz, D. J., Engels, R., Becker, E. S., & van Strien, T. (2008). The bold and the beautiful. Influence of body size of televised media models on body dissatisfaction and actual food intake. *Appetite*, 51(3), 530-537.**

The effects of exposure to televised thin and average size models on body dissatisfaction and actual food intake were examined. Normal weight female students (N = 104) were exposed to a 30-min movie clip featuring beautiful girls. Half of them viewed the movie clip in normal screen size (4:3) and the other half viewed the same movie clip in broad screen size (16:9), in which the body size of the actresses was slightly stretched breadthways. Actual food intake while watching and body dissatisfaction afterwards was examined. Additionally, restrained eating was assessed as a possible moderating variable. Two interaction effects were found between screen size and restrained eating on body dissatisfaction and actual food intake. Restrained eaters tended to feel worse and eat less in the average size condition compared to the thin model condition, whereas unrestrained eaters felt worse and ate less in the thin model condition compared to the average size condition. So, body size of televised images affected body dissatisfaction and food intake, differentially for restrained and unrestrained eaters. The screen sizes used correspond with widely used screen sizes nowadays enhancing the practical relevance of the study, since screen size might affect body dissatisfaction and food intake in daily life as well.

Materials: Television advertisements featuring either average and oversized models or thin models.

**Anschutz, D.J., Van Strien, T.. & Engels, R.C. M. E. (2008). Exposure to slim images in mass media: Television commercials as reminders of restriction in restrained eaters. *Health Psychology*, 27(4), 401-408.**

Objective: The aim of the present study was to explore the effects of exposure to slim images and diet-related products in commercials on actual food intake in relation to dietary restraint. Design: An experimental design was used, in which food intake was measured in 124 female students who watched either a sad or a neutral movie on television, which was interrupted by either commercials featuring slim models and diet products, or neutral commercials. Subsequently, participants filled out questionnaires on dietary restraint and any tendency toward overeating. Main outcome variable: Intake of snack food while watching television. Results: It was found that highly restrained students exposed to commercials with slim models and diet-related products ate less food, whereas less restrained eaters ate slightly more after seeing these commercials. Conclusion: The findings suggest that restrained eaters confronted with diet products and slim images when watching television will be reminded of their restricted eating behaviour and eat less. The present study provides support for the reinhibition theory of slim media images.

Materials: A sad film or a neutral film was interrupted by either a series of neutral adverts containing few people, or adverts featuring slim models or diet products, both lasting 3.5 minutes.

**Bessenoff, G. R. (2006). Can the media affect us? Social comparison, self-discrepancy, and the thin ideal. *Psychology of Women Quarterly*, 30, 239–251.**

The current study explored body image self-discrepancy as moderator and social comparison as mediator in the effects on women from thin-ideal images in the media. Female undergraduates (N = 112) with high and low body image self-discrepancy were exposed to advertisements either with thin women (thin ideal) or without thin women (neutral-advertisement control). Exposure to thin-ideal advertisements increased body dissatisfaction, negative mood, and levels of depression and lowered self-esteem. In addition, social comparison processes mediated the relationship between exposure to thin-ideal advertisements and negative self-directed effects. Notably, self-discrepancy moderated this mediation. Women with high levels of body image self-discrepancy were more likely to engage in social comparison from exposure to thin-ideal advertisements, as well as more likely to have those comparison processes induce self-directed negative consequences. This research provides support for an individual difference variable (body image self-discrepancy) that moderates the mediating effect of social comparison from exposure to thin-ideal media.

*Materials: Each set of stimuli consisted of eight advertisements. Thin ideal advertisements consisted of clothing/fashion advertisements depicting three-fourths to full-body pictures of thin female models. The non-thin-ideal (neutral-ad control) set consisted of non-clothing advertisements (e.g., watches) not depicting thin female models. Stimuli selected from magazines (e.g. glamour)*

**Birkeland, R., Thompson, J. K., Herbozo, S., Roehrig, M., Cafri, G., & van den Berg, P. (2005). Media exposure, mood, and body image dissatisfaction: An experimental test of person versus product priming. *Body Image*, 2, 53–61.**

In the current study, 138 college females were randomly assigned to four media exposure conditions based on the presence or absence of an attractive person (fashion model) and the presence or absence of an appearance-related product. Outcome measures consisted of visual analogue ratings of multiple body image and mood variables. The results revealed a significant main effect for person, indicating that the presence of a model increased levels of body dissatisfaction and negative mood. No product effect emerged and there was no significant interaction between person and product. These findings suggest that the appearance priming effect of media exposure on body dissatisfaction and mood is specific to a person stimulus, with no additional effect promoted by a generic appearance-relevant stimulus.

*Materials: Advertisements taken from popular magazines featuring either models or household products*

**Brown, A. & Dittmar, H. (2005). Think 'thin' and feel bad: The role of appearance schema activation, attention level, and thin-ideal internalization for young women's responses to ultra-thin media ideals. *Journal of Social and Clinical Psychology*, 24, 1088-1113.**

This study extends previous demonstrations that thin media models have a negative impact on young women's body image by examining how this effect occurs. In addition to thin-ideal internalization, shown to moderate this impact (Dittmar & Howard, 2004; Halliwell & Dittmar, 2004a), it investigates two further factors not previously explored together: first, the level of attention at which women process thin images and, second, appearance schema activation as an underlying process that mediates the exposure-anxiety link. Seventy-five women were exposed to either neutral advertisements (no models) or to thin models, at either low or high attention, manipulated by exposure time (10 s vs. 150 ms) and focus instructions. Thin models increase weight-related anxiety to the extent that women internalize the thin ideal,

but anxiety is heightened further under conditions of high attention. These two effects are independent, and only the first is mediated fully by appearance schema activation. Research and intervention implications are discussed.

Materials: Adverts taken from magazines aimed at young women, featuring either products or models.

**Cash, T.F., Cash, D.W., & Butters, J.W. (1983). Mirror, mirror, on the wall? Contrast effects and self-evaluations of physical attractiveness. *Personality and Social Psychology Bulletin*, 9, 351-358.**

Several studies confirm the operation of contextual contrast effects on judgments of the physical attractiveness of others. The present experiment was conducted to determine whether contrast effects also occur on self-evaluations of physical attractiveness. Fifty-one female college students rated their own attractiveness and body-parts satisfaction following exposure to same-sexed stimulus persons who either were not physically attractive, were physically attractive, or were designated as attractive professional models. The predicted contrast effect was supported for self-perceived attractiveness but not for body satisfaction. Consistent with social comparison theory, subjects gave lower self-ratings in the attractive versus the not attractive and the professionally attractive stimulus context. Correlational analyses also indicated that self-rated attractiveness was related to several personality variables.

Materials: Pictures of 18-35 year old women taken from magazine adverts and articles separated into three conditions; attractive, attractive and paired with a brand name to indicate professional status or not attractive.

**Crouch, A. & Degelman, D. (1998). Influence of female body images in printed advertising on self-ratings of physical attractiveness by adolescent girls. *Perceptual and Motor Skills*, 87, 585-586**

In contrast to earlier studies suggesting that self-concept is stable by late adolescence and therefore resistant to change, this study found that female adolescents' ratings of self-attractiveness were significantly higher following exposure to print ads employing attractive models who were overweight compared to those exposed to models who were not overweight. Implications for further research are discussed.

Materials: Black and white printed adverts for brand name cheese, labeled either as regular or fat free featuring attractive models as presented in original attractive format, or digitally altered to appear overweight.

**Dalley, S. E., Buunk, A. P., & Umit, T. (2009). Female body dissatisfaction after exposure to overweight and thin media images: The role of body mass index and neuroticism. *Personality and Individual Differences*, 47(1), 47-51.**

Exposure to thin media images is thought to play a significant role in the development of body image dissatisfaction (BID) amongst females. In this study we examined whether individual differences in body mass index (BMI) and neuroticism can make females more vulnerable to BID upon exposure to overweight media images than thin media images. Female volunteers were randomly assigned to thin or overweight exposure conditions. Before exposure all gave height and weight data and completed a 12-item neuroticism (N) questionnaire. While exposure to thin media images was associated with greater BID, in the overweight exposure condition there was an interaction between BMI and N so that with increasing BMI those higher in N experienced greater BID. Female BID may not, therefore, be solely restricted to exposure to thin media images. The implications for future research, as well as BID prevention programmes, are discussed. (C) 2009 Elsevier Ltd. All rights reserved.

Materials: Photos of either thin models taken from fashion magazines or overweight models taken from plus-size fashion magazines and the internet.

**DeBraganza, N., & Hausenblas, H. A. Media Exposure of the Ideal Physique on Women's Body Dissatisfaction and Mood The Moderating Effects of Ethnicity. *Journal of Black Studies*, 40(4), 700-716.**

Although body image concerns are influenced by cultural and ethnic factors, most research on the media and body image has focused exclusively on Caucasians. The goal of this study was to examine whether ethnicity moderates the body dissatisfaction and mood of women exposed to media images portraying the ideal physique. Two ethnic groups of women (Caucasians and African Americans) viewed two sets of slides (mass media ideals and controls) and completed pre- and post-test mood state measures of anxiety, depression, anger, and body dissatisfaction. Findings reveal that although the African American women reported no changes from pre- to post-test body dissatisfaction after viewing either slide condition, the Caucasian women reported higher body dissatisfaction after viewing the model slides and lower body dissatisfaction scores after viewing the control slides. No other results were significant. Study results and future research directions are discussed.

Materials: Photographs of either thin or average sized models taken from magazines and clothing catalogues.

**Dittmar, H. & Halliwell, E. (2005). The role of self-beliefs in women's responses to idealised media images.** Funded by the UK's Economic and Social Research Council's (ESRC) grant RES-000-22-0774. A research report detailing the main findings can be downloaded at [www.esrcsocietytoday.ac.uk/ESRCInfoCentre](http://www.esrcsocietytoday.ac.uk/ESRCInfoCentre). There is consistent evidence that the unrealistically thin women models typically used in advertising have a negative impact on a large proportion of women, making them feel dissatisfied with their body and weight. Body dissatisfaction can produce unhealthy body shaping behaviours, such as disordered eating. Such negative media effects have given rise to concern (e.g., UK Body Image Summit, 2000), but advertisers defend their use of ultra-thin models with the argument that these images "sell".

The research project had two main aims. First, it contributed to an improved understanding of the psychological mechanisms through which women come to feel bad about their bodies. We focused on self-discrepancies – beliefs women hold about gaps between their current body (actual self) and how they would ideally like to be (ideal self) – in developing a theoretically-derived model of when and why women feel bad about their bodies after seeing thin ideals in the media. The second aim was to examine the use of models with an average body size (with respect to UK women) as alternative advertising images that may be equally effective in promoting products, but without increasing women's body dissatisfaction.

Using a sample of 800 women aged 18-30, the research programme consisted of four studies. We assessed each woman's self-beliefs and body dissatisfaction at Time 1 (Study 1) and then measured her responses to advertising in one of three exposure experiments at Time 2 (Studies 2-4). We have already presented preliminary findings at Social and Health Psychology conferences during Summer 2005 (EAESP, BPS). The main findings to date are summarised below.

Compared to a no models control, exposure to advertisements featuring ultra-thin models had a negative impact on women's body image, depending on their self-beliefs. Women with larger appearance-related self-discrepancies became more anxious about their body after thin models than those with smaller appearance-related self-discrepancies. This effect occurred regardless of women's actual body weight. Against expectation, exposure to average-sized models was also found to increase body anxiety, but this effect was linked to body weight. This suggests that it

is heavier women who become more anxious, presumably because they see even average-sized models as thin in comparison to themselves. In addition to pre-existing self-beliefs, we also examined self-discrepancies aroused through exposure to models. Ultra-thin models increased anxiety among women with pre-existing appearance-related self-discrepancies because they make them think, there and then, about an ideal self that is thinner than their actual self. Thus, both pre-existing self-beliefs as well as activation of self-beliefs related to body size are important psychological processes that affect women's responses to thin ideals in the media (objective 1). This supports the usefulness of self-discrepancy theory for an improved understanding of negative media effects, which can be explained through pre-existing self-discrepancies that are chronically accessible as well as temporary, exposure-activated self-beliefs patterns (objective 2).

With respect to effectiveness, advertisements showing average-size models were just as persuasive in promoting body care products as those that depicted ultra-thin models. This suggests that models with a healthy, normal body size could be used effectively in advertising, which is likely to avoid increased body anxiety among many women, unless they are overweight (objective 3). Confidence in this finding would increase if it also occurred for other consumer goods, particularly those relevant for appearance. We compared products related to facial attractiveness (make-up) and to body weight (weight loss products), advertised by the ultra-thin or average-size models who were either highly or moderately attractive. The findings showed that advertising effectiveness was not compromised by using average-sized models, suggesting that they can be used effectively when advertising different products, even products related to weight loss. However, women's perceptions of advertising effectiveness can be influenced by their self-belief patterns. Women who hold chronic weight-related self-discrepancies, but believe that weight loss is achievable for them, were more influenced by adverts with ultra-thin models, but only when the models were moderately, not highly, attractive. Thus, the use of healthier advertising models with a body size close to the UK average seems to entail little, if any, loss in terms of effective selling of products (objective 4).

Taken together, the findings of this project contribute toward building a theoretically grounded and evidence-based foundation for researchers and practitioners in diverse fields interested in developing proposals that can help protect vulnerable girls and women from excessive body dissatisfaction (objective 5).

The project has both theoretical and practical impact. It used self-discrepancy theory to develop a framework for understanding negative effects of idealized women models on women's body image. The integration of both pre-existing self-discrepancies that are chronically accessible as well as temporary, exposure-activated self-beliefs patterns is potentially applicable to other types of media effects, as long as self-discrepancies are specifically relevant. The findings that ultra-thin models in advertising have a negative effect on many women through their appearance-related self-discrepancies, in conjunction with evidence that advertising effectiveness is not compromised by using alternative, average-size models have implications for intervention. At the social and public level, they can inform debate about responsible advertising policies, and at the level of the individual, they suggest that – in addition to critical reflection on unhealthy media images – girls' and women's patterns of self-beliefs should be targeted, so that body weight and appearance become less central sources of self-worth.

*Materials: Magazine-style advertisements created using different sized bodies with identical faces.*

**Dittmar, H., Halliwell, E. & Stirling, E. (2009). Understanding the impact of thin media models on women's body-focused affect: The roles of thin-ideal internalization and weight-related self-discrepancy activation in experimental exposure effects. *Journal of Social and Clinical Psychology, 28, 43-72.***

Previous experimental research demonstrates that exposure to ultra-thin media models has negative effects on many women's body image, but neglects underlying psychological processes. We develop and test a moderated mediation model with internalization of the thin beauty ideal as moderator, and activation of weight-related self-discrepancies as mediating mechanism through which exposure leads to heightened body-focused negative affect. We demonstrate that thin-internalizers' higher negative affect after exposure to advertisements featuring thin models is fully mediated by weight-related self-discrepancy activation ( $N = 87$ ; Study 1). These findings replicate in a larger sample of women ( $N = 155$ ; Study 2) and hold regardless of whether or not thin models' body size was emphasized during exposure. Implications for interventions are discussed.

Materials: Magazine style product advertisements created using models taken from fashion magazines, or showing a product alone.

**Dittmar, H., & Howard, S. (2004). Professional hazards? The impact of model's body size on advertising effectiveness and women's body-focused anxiety in professions that do and do not emphasize the cultural ideal of thinness. *British Journal of Social Psychology, 43*, 1-33.**

Previous experimental research indicates that the use of average-size women models in advertising prevents the well-documented negative effect of thin models on women's body image, while such adverts are perceived as equally effective (Halliwell & Dittmar, 2004). The current study extends this work by:

(a) seeking to replicate the finding of no difference in advertising effectiveness between average-size and thin models

(b) examining level of ideal-body internalization as an individual, internal factor that moderates women's vulnerability to thin media models, in the context of

(c) comparing women in professions that differ radically in their focus on, and promotion of, the sociocultural ideal of thinness for women—employees in fashion advertising ( $n = 75$ ) and teachers in secondary schools ( $n = 75$ ).

Adverts showing thin, average-size and no models were perceived as equally effective. High internalizers in both groups of women felt worse about their body image after exposure to thin models compared to other images. Profession affected responses to average-size models. Teachers reported significantly less body-focused anxiety after seeing average-size models compared to no models, while there was no difference for fashion advertisers. This suggests that women in professional environments with less focus on appearance-related ideals can experience *increased* body-esteem when exposed to average-size models, whereas women in appearance-focused professions report no such relief.

Materials: Magazine style advertisements created using models taken from fashion magazines, stretched to average body size for a control condition.

**Dittmar, H. & Howard, S. (2004). Thin-Ideal body internalization and social comparison tendency as moderators of thin media models' impact on women's body-focused anxiety. *Journal of Social and Clinical Psychology, 23*, 768-791.**

Exposure to thin media models has a negative effect on women's body image, and the current study extends previous research by examining the relative impact and interrelation of two moderators: (a) individual differences in women's internalization of the thin ideal, and (b) tendency to make social comparisons with media models.

Body-focused anxiety of adult professional women ( $n = 150$ ) was examined after they had been exposed to one of three types of images: thin models, average-size models, or no models (baseline control). Regression analyses confirmed that thin-ideal internalization and tendency toward appearance-related social comparisons act as moderators of media effects, but internalization is a more proximal and specific predictor of women's anxiety than more general social comparison. Negative

reactions to thin images are conditional on internalization only, whereas high internalization undermines the positive effects of exposure to average– size models when it combines with strong habitual social comparison. Implications for methodology, future research, and intervention are discussed.

Materials: Magazine style advertisements created using models taken from fashion magazines, stretched to average body size for a control condition.

**Fallon, E. A., & Hausenblas, H. A. (2005). Media images of the “ideal” female body: Can acute exercise moderate their psychological impact? *Body Image, 2*, 62–73.**

Exposure to the media’s “ideal” physique increases mood and body image disturbance, especially for at-risk women. Because exercise decreases mood and body image disturbance, we examined the ability of acute aerobic exercise to moderate the negative psychological impact of exposure to media pictures of the “ideal” female body. Women reporting high drive for thinness and media internalization viewed pictures of either non-physique or “ideal” physique pictures after engaging in 30 min of either aerobic exercise or quiet rest. Compared to the non-physique pictures, viewing the physique pictures resulted in increased depression and body dissatisfaction. Acute aerobic exercise, however, did not moderate the negative mood states elicited by the media images. Implications of our results and future directions for research are discussed.

Materials: Images of women taken from popular magazines or clothing catalogues with images of everyday objects as controls.

**Frisby, C. M. (2004). Does race matter? Effects of idealized images on African American women’s perceptions of body esteem. *Journal of Black Studies, 34*, 323–347**

Using the theory of social comparison, this study examines the impact of exposure to advertisements of thin, physically attractive, Caucasian and African American models on the self-evaluations of African American women exhibiting varying levels of self-reported body esteem. As expected, exposure to idealized images of Caucasian models was not related to lowered self-evaluations regardless of the level of body esteem. However, women with low levels of body esteem did report lowered self-satisfaction with body esteem when exposed to physically attractive images of African American models. Results suggest that similarity or ethnicity of the idealized image may have an impact on African American women’s self-evaluations. Theoretical implications are discussed with respect to future research in the area of racial issues and mass media effects

Materials: 18 adverts featuring Caucasian models, and 18 adverts featuring African American models both for appearance related products taken from frequently read fashion magazines by the sample.

**Halliwel, E., & Dittmar, H. (2004). Does size matter? The impact of model’s body size on advertising effectiveness and women’s body-focused anxiety. *Journal of Social and Clinical Psychology, 23*, 105-132.**

An increasing number of studies shows that exposure to thin ideal bodies in the media has negative effects on young women’s body images, at least in the short-term. However, this research has (a) consistently confounded the effects of thinness and attractiveness, and (b) not investigated the potential use of alternative images in advertising that do not decrease women’s body esteem. This study examines the impact of three types of advertisements—featuring thin models, average-size models, or no models—on adult women’s body-focused anxiety, and on advertising effectiveness. As expected, exposure to thin models resulted in greater body-focused anxiety among women who internalize the thin ideal than exposure to average-size models or no models. Yet, advertisements were equally effective,

regardless of the model's size. This implies that advertisers can successfully use larger, but attractive, models and perhaps avoid increasing body-focused anxiety in a large proportion of women.

Materials: Magazine style advertisements created using models taken from fashion magazines, or stretched to average body size.

**Halliwell, E., & Dittmar, H. (2005). The role of self-improvement and self-evaluation motives in social comparisons with idealised female bodies in the media. *Body Image*, 2, 249-261.**

This study investigates the effect of social comparisons with media models on women's body image based on either self evaluation or self-improvement motives. Ninety-eight women, for whom appearance was a relevant comparison dimension, viewed advertisements that did, or did not, feature idealised models, after being prompted to engage in self-evaluation or self improvement comparisons. The results indicate that, when focusing on self-evaluation, comparisons with thin models are associated with higher body-focused anxiety than viewing no model advertisements. In contrast, when focusing on self improvement, comparisons with thin models are not associated with higher body-focused anxiety than viewing no models. Furthermore, women's general tendency to engage in social comparisons moderated the effects of self-evaluative comparisons with models, so that women who did not habitually engage in social comparisons were most strongly affected. It is suggested that motive for social comparison may explain previous inconsistencies in the experimental exposure literature and warrants more careful attention in future research.

Materials: Advertisements taken from popular women's magazine featuring either models or just products.

**Halliwell, E., Dittmar, H., & Howe, J. (2005). The impact of advertisements featuring ultra-thin or average-size models on women with a history of eating disorders *Journal of Community & Applied Social Psychology*, 15, 406-413**

Previous research demonstrates that exposure to ultra-thin media models leads to increased body image concerns amongst women (Groesz, Levine, & Murnen, 2002). There is emerging evidence that attractive, average-size models do not have this negative effect and can be effective in advertising (e.g. Halliwell & Dittmar, 2004). The present study investigates these factors amongst women with a history of eating disorders. Participants either viewed advertisements featuring ultra-thin, average-size or control images. Immediately after exposure, they reported their body-focused anxiety and rated the effectiveness of the advertisements. Whereas exposure to ultra-thin models did not lead to increased body-focused anxiety, exposure to average-size models produced a *relief effect*, whereby women reported *lower* levels of body-focused anxiety. Advertisements featuring ultra-thin and average-size models were equally effective. The results suggest that average-size, attractive models could be used effectively in advertising, which may help to relieve body image concerns amongst these women.

Materials: Ultra thin models taken from advertisements in fashion magazines were presented with a perfume advertisement, or digitally altered to create a dress size 14, and paired with a perfume advert.

**Hamilton, E. A., Mintz, L., & Kashubeck-West, S. (2007). Predictors of media effects on body dissatisfaction in European American women. *Sex Roles*, 56, 397-402**

This study involved a sample of 81 European American women viewing either appearance-related or non-appearance-related magazine advertisements. Participants completed measures of demographics and objectified body

consciousness prior to viewing these images and a measure of body dissatisfaction prior to and after viewing the images. Body dissatisfaction scores worsened after viewing images of women who exemplified cultural standards of the thin beauty ideal. Neither objectified body consciousness nor body mass index predicted degree of change in body dissatisfaction after viewing the images. In other words, the impact of viewing the images was the same for all women, despite varying body mass index levels and varied degrees of objectified body consciousness. Implications are discussed.

Materials: Advertisements taken from magazines showing featuring either a model or a product alone

**Harper, B., & Tiggemann, M. (2008). The effect of thin ideal media images on women's self-objectification, mood, and body image. *Sex Roles, 58*, 649–657**

Objectification theory (Fredrickson and Roberts, *Psychology of Women Quarterly, 21*, 173–206, 1997) contends that experiences of sexual objectification socialize women to engage in self-objectification. The present study used an experimental design to examine the effects of media images on self-objectification. A total of 90 Australian undergraduate women aged 18 to 35 were randomly allocated to view magazine advertisements featuring a thin woman, advertisements featuring a thin woman with at least one attractive man, or advertisements in which no people were featured. Participants who viewed advertisements featuring a thin-idealized woman reported greater state self-objectification, weight-related appearance anxiety, negative mood, and body dissatisfaction than participants who viewed product control advertisements. The results demonstrate that self-objectification can be stimulated in women without explicitly focusing attention on their own bodies.

Materials: Advertisements taken from magazines showing either female models, female models being the subject of a man's attention or products with no models.

**Hawkins, N., Richards, P. S., Granley, H. M., & Stein, D. M. (2004). The impact of exposure to the thin-ideal media image on women. *Eating Disorders, 12*, 35–50**

The purpose of this study was to experimentally examine the effects of exposure to the thin-ideal body image on women's affect, self-esteem, body satisfaction, eating disorder symptoms, and level of internalization of the thin-ideal. College women (N = 145) were randomly exposed to photographs from popular magazines containing either thin-ideal images or neutral images. Exposure to thin-ideal magazine images increased body dissatisfaction, negative mood states, and eating disorder symptoms and decreased self-esteem, although it did not cause more internalization of the thin-ideal. Exposure to thin-ideal media images may contribute to the development of eating disorders by causing body dissatisfaction, negative moods, low self-esteem, and eating disorders symptoms among women.

Materials: Advertisements taken from popular magazines showing featuring either a model or a product alone.

**Heinberg, L. J., & Thompson, J. K. (1995). Body image and televised images of thinness and attractiveness: A controlled laboratory investigation. *Journal of Social and Clinical Psychology, 14*, 324-338.**

One hundred and thirty-nine women viewed television commercials that contained either Appearance-related commercials (demonstrating societal-endorsed images of thinness and attractiveness) or Non-Appearance-related advertisements. Pre-post measures of depression, anger, anxiety and body dissatisfaction were examined. Participants were blocked by a median split on dispositional levels of body image disturbance and sociocultural attitudes regarding appearance. Individuals high on these measures became significantly more depressed following exposure to the Appearance videotape and significantly less depressed following a viewing of the

Non-Appearance advertisements. In addition, individuals high on the level of sociocultural awareness/internalization became increasingly angry and participants high on body image disturbance became more dissatisfied with their appearance following exposure to commercials illustrating thinness/attractiveness. Participants who scored below the median on dispositional levels of disturbance either improved or showed no change on dependent measures in both Appearance and Non-Appearance video conditions. The findings are discussed in the light of factors that might moderate media-influenced perturbations in body image.

Materials: Short television advertisements featuring either no people or people judged to show the societal ideal of thinness and attractiveness.

**Henderson-King, D., Henderson-King, E., & Hoffmann, L. (2001). Media images and women's self-evaluations: Social context and importance of attractiveness as moderators. *Personality and Social Psychology Bulletin*, 27, 1407–1416**

The current research examines the effects of exposure to ideal images on women's self-evaluations, taking into account the moderating influence of social contextual and individual difference factors. In Study 1, women were exposed to either ideal images of women or neutral images. Participants viewed these images in a context in which (a) men were not present, (b) men were present, or (c) men were present and made comments about some of the images. Results indicated that participants' weight-esteem was negatively affected in the ideal image/men present condition but that those in the ideal image/men comment condition actually exhibited higher levels of weight-esteem. A second study replicated the results of Study 1 and also showed that the importance participants placed on physical attractiveness influenced the effects of viewing ideal images.

Materials: Neutral images: 40 pictures which did not include or did not focus on people, taken from advertisements and layouts. Food images were not used here.

Women images: 10 neutral images plus 30 images which met the contemporary ideal of female attractiveness and focused primarily on products related to fashion, dieting, and cosmetics.

**Ip, K., & Jarry, J. L. (2008). Investment in body image for self-definition results in greater vulnerability to the thin media than does investment in appearance management. *Body Image*, 5, 59–69**

This study investigated the effect of thin images according to two dimensions of body-image (BI) investment. Ninety-five females were classified as high or low investors based on the Appearance Schemas Inventory-Revised Self-Evaluative Saliency (SES) and Motivational Saliency (MS) subscales. Participants viewed advertisements portraying either the thin ideal or products. Results indicated that both women high in SES and MS reported lowered appearance self-esteem but greater BI importance following thin exposures. However, only the high SES group reported greater BI dissatisfaction and importance of current-ideal discrepancies after seeing thin images. Although highly invested women (regardless of their motivation for investment) are more responsive to thin media images than are women low in investment, those invested for self-definition are affected on more dimensions than are those invested for appearance management.

Materials: Advertisements taken from popular magazines showing featuring either a model or a product alone.

**Legenbauer, T., Ruhl, I. and Vocks, S. (2008). Influence of appearance-related TV commercials on body image state. *Behavior Modification*, 32, (3) 352-371.**

This study investigates the influence of media exposure on body image state in eating-disordered (ED) patients. The attitudinal and perceptual components of body image are assessed, as well as any associations with dysfunctional cognitions and behavioral consequences. Twenty-five ED patients and 25 non-ED controls (ND)

viewed commercials either featuring appearance (AC; 5 min) or not featuring appearance (NC; 5 min). Both perceptual and attitudinal body image components changed markedly after the AC condition for ED patients, compared with the ND group and NC condition. Cognitions referring to dietary restraint and internalization/social comparison also changed significantly in ED patients depending on the experimental manipulation, whereas thoughts about body and self-esteem did not. The results suggest that media exposure acts as a stimulus that triggers body-related schemas. Partial support is given to cognitive-behavioural models of eating disorders, which postulate an association between cognitive bias, body image disturbances, and compensatory behavioural consequences.

Materials: Television advertisements for body-related products which emphasized slimness and attractiveness. Advertisements for neutral products were used as a control.

**Monro, F., & Huon, G. (2005). Media-portrayed idealized images, body shame, and appearance anxiety. *International Journal of Eating Disorders*, 38, 85–90**  
*Objective*

This study was designed to determine the effects of media-portrayed idealized images on young women's body shame and appearance anxiety, and to establish whether the effects depend on advertisement type and on participant self-objectification.

*Method*

Participants were 39 female university students. Twenty-four magazine advertisements comprised 12 body-related and 12 non-body-related products, one half of each with, and the other one half without, idealized images. Pre-exposure and post exposure body shame and appearance anxiety measures were recorded.

*Results*

Appearance anxiety increased after viewing advertisements featuring idealized images. There was also a significant interaction between self-objectification level and idealized body (presence vs. absence). No differences emerged for body-related compared with non-body-related product advertisements. The only result for body shame was a main effect for time. Participants' body shame increased after exposure to idealized images, irrespective of advertisement type.

*Discussion*

Although our findings reveal that media-portrayed idealized images detrimentally affect the body image of young women, they highlight the individual differences in vulnerability and the different effects for different components of body image. These results are discussed in terms of their implications for the prevention and early intervention of body image and dieting-related disorders.

Materials: Twenty-four images were selected from popular magazines. Twelve images were advertisements for body-related products, and 12 were advertisements for non-body-related products. Within each of these advertisement types, one half of the advertisements featured idealized bodies. The other one half were same, without the body in the image.

**Richins, M.L. (1991). Social comparison and the idealized images of advertising. *Journal of Consumer Research*, 18, 71-83.**

This article reviews theories that might explain how advertising causes dissatisfaction with the self. It is hypothesized that consumers compare themselves with idealized advertising images. Exposure to such images may change consumers' comparison standards for what they desire or lower perceptions of their own performance on relevant dimensions; the result is lowered satisfaction. Exploratory and experimental research examined these hypotheses in the context of idealized images of physical

attractiveness in ads targeted at young women. Evidence for comparison was found. Results suggest that idealized images raised comparison standards for attractiveness and lowered satisfaction with one's own attractiveness.

Materials: Study 3 of this article used advertisements taken from magazines which either featured attractive models or displayed the product alone. Study 4 used similar advertisements, showing alone product alone, with a model's face or with a whole body image. Studies 1 & 2 were not exposure experiments and so had no stimuli.

**Smeesters, D., & Mandel, N. (2006). Positive and negative media image effects on the self. *Journal of Consumer Research*, 32, 576–582**

We examine several factors that determine whether exposure to thin (or heavy) media images positively or negatively affects consumers' appearance self-esteem. We find that the effects of exposure to models in advertisements depend on two moderating factors: (1) the extremity of the model's thinness or heaviness, and (2) the method by which self-esteem is measured (free responses vs. rating scales). We also establish the underlying role of self-knowledge activation by examining response latencies in a lexical decision task.

Materials: Magazine advertisements featuring extremely thin, moderately thin, moderately heavy or extremely heavy models.

**Stice, E., & Shaw, H. (1994). Adverse effects of the media portrayed thin-ideal on women and linkages to bulimic symptomatology. *Journal of Social and Clinical Psychology*, 13, 288-308.**

Although researchers have postulated that the thin-ideal body image portrayed in the media contributes to eating pathology among females, little research has directly examined the effects of these images on women. The central aim of the present study was to experimentally assess the effects of exposure to the thin-ideal on women's affect, body satisfaction, and endorsement of the thin-ideal stereotype. The secondary aim was to link these putative mediators to bulimic symptomatology. Female undergraduates (N = 157) were randomly exposed to pictures from magazines containing either ultra-thin models, average-sized models, or no models. Results indicated that exposure to the thin-ideal produced depression, stress, guilt, shame, insecurity, and body dissatisfaction. Further, multiple regression analyses indicated that negative affect, body dissatisfaction, and subscription to the thin-ideal predicted bulimic symptoms. Implications for the sociocultural model of bulimia, prevention, and future research are discussed.

Materials: Images of either thin or average size women taken from magazine adverts and content, with images not showing people used as a control.

**Strahan, E. J., Spencer, S. J., & Zanna, M. P. (2007). Don't take another bite: How sociocultural norms for appearance affect women's eating behaviour. *Body Image*, 4(4), 331-342.**

Four studies tested the impact of exposure to thin images on women's eating behaviour. In Study 1, women who were exposed to commercials containing thin models ate less in a taste test than women exposed to neutral commercials. The next two studies revealed that the impact of the thin images could be reduced by challenging the sociocultural norms for appearance. In Study 2, including images of relatively heavier women who have been successful in life (an indirect challenge to the norm) attenuated the impact of the thin images on women's eating behaviour. Study 3 demonstrated that convincing women that their peers do not endorse the sociocultural norms also reduced the impact of the thin images. In Study 4, we found that exposure to thin images led to activation of an association between heaviness and rejection and that the more this association was activated, the less participants ate.

Materials: Television adverts featuring either thin or heavy women.

**Strahan, E. J., Wilson, A. E., Cressman, K. E., & Buote, V. M. (2006). Comparing to perfection: How cultural norms for appearance affect social comparisons and self-image. *Body Image, 3*, 211–227**

Theory and research suggests that cultural norms for appearance present unrealistic standards of beauty which may contribute to women's body dissatisfaction. In Study 1, women described their appearance more negatively than men and made more upward social comparisons about their bodies, but not about other domains. Women also compared more than men with unrealistic targets (e.g., models). In Study 2, we explored the role of cultural norms for appearance in social comparisons with relevant (peer) or irrelevant (model) superior targets. When cultural norms were not salient, participants judged a peer to be more relevant, compared more with the peer, and were more negatively affected by the peer. However, when cultural norms were salient, participants judged a professional model to be equally relevant, compared more with the model and felt worse after exposure to the model. We discuss the powerful role of cultural norms in determining social comparison processes and self-appraisals.

Materials: Advertisements taken from magazines featuring male or female models promoting self-enhancement products, with advertisements showing products alone as a control. Models were the same gender as the participants who viewed them.

**Strahan, E. J., Lafrance, A., Wilson, A. E., Ethier, N., Spencer, S. J., & Zanna, M. P. (2008). Victoria's dirty secret: How sociocultural norms influence adolescent girls and women. *Personality and Social Psychology Bulletin, 34*, 288–301**

The present studies tested whether the salience of sociocultural norms for ideal appearance leads women to base their self-worth more strongly on appearance, which in turn leads them to feel more concerned with others' perceptions and less satisfied with their bodies. Study 1 tested this model by manipulating the salience of the sociocultural norm among female university students. The model was supported. In Study 2 an intervention challenging the legitimacy of the sociocultural norm was delivered to female and male adolescents. Compared to controls, females who received this intervention were less accepting of the sociocultural norms for appearance, based their self-worth less strongly on appearance, and in turn were less concerned with others' perceptions and were more satisfied with their bodies. The implications for women are discussed.

Materials: Study 1 used television advertisements featuring either models or products alone. Study 2 used interactive sessions with students talking about cultural ideals and being shown images which represent the perfect body ideal.

**Thornton, B. & Maurice, J. (1997). Physique contrast effects: Adverse impact of idealized body images for women. *Sex Roles, 37*, 433-439.**

Adherence to an attractiveness ideal was considered as a possible mediator of a physique contrast effect among Caucasian women. Following exposure to photographs of models typifying idealized thin physiques, women displayed decreased self-esteem and increased self-consciousness, social physique anxiety, and body dissatisfaction. Although women with low adherence to an attractiveness ideal seemed to be advantaged by having greater self-esteem, less self-consciousness, and lower physique anxiety or dissatisfaction than their high adherence counterparts, these women did not display any unique resistance to the contrast effect. High affirmation of an attractiveness ideal was associated with exceptionally high potential for disordered eating. Eating disorder potential did not show influence of the contrast effect, but long-term implications were considered.

Materials: Images of attractive and thin models taken from clothing catalogues.

**Thornton, B., & Maurice, J. K. (1999). Physical attractiveness contrast effect and the moderating influence of self-consciousness. *Sex Roles, 40*, 379–392**

Separate studies provided evidence of a moderating effect of public self consciousness (trait) and public self-awareness (state) on the physical attractiveness contrast effect involving social comparison between the self and others. Generally, when exposed to photographs of attractive women with idealized physiques, women's self-perceptions of their own physical attractiveness, social physique anxiety, and social self-esteem were each negatively affected. However, these negative contrast effects were most apparent among women with high public self-consciousness (trait assessment, Study 1) or high public self-awareness (state inducement, Study 2). Implications of these findings are considered.

*Materials: Images from clothing catalogues featuring models, with advertisements of products with no models taken from magazines used as a control.*

**Tiggemann, M., Polivy, J. and Hargreaves, D. (2009). The processing of thin ideals in fashion magazines: a source of social comparison or fantasy? *Journal of Social and Clinical Psychology, 28*, (1) 73-93.**

The present study aimed to investigate the role of processing in women's responses to thin idealized images of beauty. A sample of 144 women viewed magazine advertisements containing either thin ideal or product images. Instructional set was manipulated with three levels: control, social comparison, and fantasy instructions. It was found that exposure to thin ideal images led to increased negative mood and body dissatisfaction, while instructional set had its effect on positive mood and body dissatisfaction. For thin ideal images, social comparison instructions led to greater negative mood and body dissatisfaction, while fantasy instructions led to improved positive mood. Importantly, regression analyses indicated that both comparison processing (negatively) and fantasy processing (positively) were associated with women's response to thin ideal images. It was concluded that the nature of the processing women engage in is crucial to their response to thin ideal images.

*Materials: Advertisements taken from magazines featuring either full body images of models, images showing one weight-related body part (such as thighs or stomach), or images of just the product with no models.*

**Tiggemann, M., & McGill, B. (2004). The role of social comparison in the effect of magazine advertisements on women's mood and body dissatisfaction. *Journal of Social and Clinical Psychology, 23*, 23–44**

This study aimed to investigate the role of social comparison processes in women's responses to images of thin-idealized female beauty. A sample of 126 women viewed magazine advertisements containing full-body, body part, or product images. Instructional set was also manipulated with three levels: control, appearance focus, and social comparison. Mood and body dissatisfaction were measured immediately before and after advertisement viewing, while state weight anxiety and the amount of appearance comparison engaged in were measured only after the advertisements. It was found that exposure to either body part or full body images led to increased negative mood and body dissatisfaction, while the amount of comparison processing was affected by both image type and instructional set. Importantly, regression analyses showed that the effects of image type on mood and body dissatisfaction were mediated by the amount of social comparison reported. It was concluded that the processing in which women engage in response to media images is an important contributor to negative effects.

*Materials: Advertisements taken from magazines featuring either full body images of models, images showing one weight-related body part (such as thighs or stomach), or images of just the product with no models.*

*Evidence points to both positive AND negative effects, thus appears in both section A and B.*

**Wilcox, K., & Laird, J. D. (2000). The impact of media images of super-slender women on women's self-esteem: Identification, social comparison, and self-perception. *Journal of Research in Personality*, 34, 278–286**

Some women enjoy examining media depictions of extremely slender models, while others find such depictions produce feelings of inadequacy. The two reactions appear to reflect differences in the impact of bodily information in generating feelings. Forty-one women were randomly assigned to view pictures of slender or normal-weight models and to respond to scales measuring body esteem and self-esteem. The importance of personal, bodily cues in feeling processes was also determined by inducing the women to adopt facial expressions of emotion and assessing whether their feelings changed to match their expressions. Among women whose emotions were based on personal cues, looking at slender models produced lower self-esteem and satisfaction with their weight as compared to women viewing more robust models, apparently reflecting social-comparison processes. Among women unresponsive to personal cues, looking at slender models increased self-esteem and satisfaction with their weight, apparently due to identification.

*Materials: Advertisements from magazines featuring either thin or average-weight women.*

#### *Men respondents*

**Agliata, D., & Tantleff-Dunn, S. (2004). The impact of media exposure on males' body image. *Journal of Social and Clinical Psychology*, 23, 7-22.**

Mass media are believed to be a pervasive force in shaping physical appearance ideals and have been shown to negatively impact females' body image. Little research has attended to the effects of media exposure on males' body image. The current experiment exposed 158 males to television advertisements containing either ideal male images or neutral images that were inserted between segments of a television program. Participants were blocked on dispositional body image and attitudes toward appearance variables to assess for moderating effects. Results indicated that participants exposed to ideal image advertisements became significantly more depressed and had higher levels of muscle dissatisfaction than those exposed to neutral ads. Inconsistent with past research, no dispositional effects were noted that would suggest the influence of schematicity on mood and body image changes.

*Materials: Appearance related or non appearance-related adverts as shown on television channels.*

**Baird, A. L. & Grieve, F. G. (2006). Exposure to male models in advertisements leads to a decrease in men's body satisfaction. *North American Journal of Psychology*, 8, 115-121.**

This study was designed to examine the effect of exposure to male models in advertisements on men's body satisfaction. Participants were 173 college males that were recruited from introductory psychology courses. Participants were assessed using the *Body Assessment (BA)*,

*Magazine Advertisement Questionnaire (MAQ)*, and one of two sets of magazine advertisements that consisted of either clothing or cologne products, or those same products featured with a male model. Participants who viewed advertisements with male models showed an increase in body dissatisfaction, while those who viewed only products demonstrated no change in body dissatisfaction. The importance of this finding is that the body dissatisfaction experienced through exposure to idealized images of men in the media is only the beginning of possible outcomes such as

anabolic steroid use, eating disorders, and muscle dysmorphia; Limitations and suggestions for continued research are discussed.

Materials: Adverts taken from magazines showing either products alone or products with a model.

**Farquhar, J. C., & Wasyliw, L. (2007). Media images of men: Trends and consequences of body conceptualization. *Psychology of Men & Masculinity*, 8(3), 145-160.**

In the current investigation, the authors examined how men are presented in popular media and the effects of such presentations on male adolescents' self-evaluations. In a content analysis of male models in advertisements of Sports Illustrated, Study 1 showed that media ideals increasingly emphasize aesthetic versus performance attributes of men. In Study 2, male adolescents (N = 107) were randomly assigned to view either images of male ideals emphasizing aesthetic attributes, images of male ideals emphasizing performance attributes, or neutral images. Results showed that viewing media ideals that emphasize aesthetic attributes contributes to negative self-evaluations whereas viewing media ideals that emphasize performance attributes contributes to positive self-evaluations. These findings suggest that body conceptualization, and not simply body type (i.e., muscularity), plays a role in how men feel about themselves and their bodies.

Materials: Adverts featuring male models taken from Sports Illustrated magazine.

**Gulas, C., S. & McKeage, K. (2000) Extending Social Comparison: An Examination of the Unintended Consequences of Idealized Advertising Imagery. *Journal of advertising*, 29, (2), 17-28.**

The literature indicates that the idealized images of physical attractiveness found in advertising have a negative impact on girls' and women's self-perceptions. The current study extends this research to males and adds the dimension of financial success. The empirical findings presented here indicate that exposure to idealized images of both physical attractiveness and financial success have a negative effect on males' self-evaluations. This study also examines the role of attention to social comparison information (ATSCI) in moderating the effects, and finds that high ATSCI sometimes exacerbates the unintended consequences of attractive advertising images on people's self-perceptions.

Materials: 20 adverts taken from 16 popular magazines, scoring highly on male attractiveness, male financial success, female attractiveness, female financial success (independently rated). Ads featured clothing, electronics, colognes and financial services. Advertisements with inanimate objects were used for controls.

**Halliwell, E., Dittmar, H., & Orsborn, A. (2006). The effects of exposure to muscular male models amongst men who use the gym and non-exercisers: The moderating role of exercising to increase muscle strength.**

This study examines the effects of exposure to the muscular male body ideal on body-focused negative affect among male gym users and non-exercisers. As hypothesized, the impact of media exposure depended on men's exercise status. Non-exercisers (n = 58) reported greater body-focused negative affect after exposure to images of muscular male models than after neutral images (no model controls), whereas gym users (n = 58) showed a tendency for less body-focused negative affect after the model images than after the control images. Furthermore, the extent to which gym users were motivated to increase strength and muscularity moderated these exposure effects; men who reported stronger strength and muscularity exercise motivation reported a greater degree of self-enhancement after exposure to the muscular ideal. The findings are interpreted with respect to likely differences in motives for social comparisons.

Materials: Magazine style advertisements created using models taken from popular men's magazines or with no models.

**Halliwell, E., Dittmar, H. and Osborn, A. (2007). The effects of exposure to muscular male models among men: Exploring the moderating role of gym use and exercise motivation. *Body Image, 4, (3) 278-287.***

This study examines the effects of exposure to the muscular male body ideal on body-focused negative affect among male gym users and non-exercisers. As hypothesized, the impact of media exposure depended on men's exercise status. Non-exercisers (n = 58) reported greater body-focused negative affect after exposure to images of muscular male models than after neutral images (no model controls), whereas gym users (n = 58) showed a tendency for less body-focused negative affect after the model images than after the control images. Furthermore, the extent to which gym users were motivated to increase strength and muscularity moderated these exposure effects; men who reported stronger strength and muscularity exercise motivation reported a greater degree of self-enhancement after exposure to the muscular ideal. The findings are interpreted with respect to likely differences in motives for social comparisons.

Materials: Magazine-style advertisements created using either images of muscular men taken from magazines or no models.

**Hargreaves, D. A. and Tiggemann, M. (2009). Muscular Ideal Media Images and Men's Body Image: Social Comparison Processing and Individual Vulnerability. *Psychology of Men & Masculinity, 10, (2) 109-119.***

The study aimed to investigate the role of social comparison processes in men's responses to images of muscular-ideal male beauty. A sample of 104 male university students viewed either 15 television commercials containing images of men who epitomize the current muscular ideal, or 15 nonappearance commercials containing no such images. Body satisfaction was assessed immediately before and after commercial viewing. Appearance evaluation and orientation were also examined as moderating variables. It was found that exposure to muscular-ideal television commercials led to lower muscle satisfaction and physical attractiveness than nonappearance commercials, with men high on appearance orientation the most vulnerable. Men high on appearance orientation also engaged in greater upward social comparison to muscular-ideal images which, in turn, predicted changes in body satisfaction. Taken together, the findings provide consistent evidence for a role for media images in men's body image.

Materials: Television advertisements featuring either men with idealised muscular bodies or average-looking men.

**Johnson, P.J., McCreary, D.R. & Mills, J.S. (2007). Effects of exposure to objectified male and female media images on men's psychological well-being. *Psychology of Men & Masculinity, 8(2), 95-102.***

This study examined the effects of viewing media-portrayed, objectified male and female images on the body image and psychological well-being of university men. Ninety male university students completed the muscularity attitudes subscale from the Drive for Muscularity Scale (McCreary & Sasse, 2000) and the Affect Rating Scale (Atkinson & Polivy, 1976). The results demonstrated that although there were no significant effects of the images on men's body image, men who were exposed to female objectified images endorsed greater levels of anxiety and hostility than those exposed to objectified male or neutral media images. Methodological limitations, as well as implications of the results for understanding the relationship between objectified media images and men's psychological well-being, are discussed.

Materials: Advertisements of both male and female objectified images. Ads in the male condition, depicting "strong" and "muscular" (independently rated) men

revealing their chests and torsos, were taken from magazines such as Men's Health, Men's Journal, and GQ. Ads in the female condition, which depicted "thin" and "sexy" (independently rated) women in swimsuits or lingerie, were taken from a variety of fashion magazines such as Vogue, Harper's Bazaar, Vanity Fair, and Shape. Ads for the control condition featured only automobiles and household products, taken from Good Housekeeping magazine.

**Leit, R.A., Gray, J.J., & Pope, H.G. (2002). The media's representation of the ideal male body: A cause of muscle dysmorphia? *International Journal of Eating Disorders*, 31, 334-338.**

**Abstract. Objective:** This study sought to examine the effects of media images on men's attitudes towards their body appearance. **Method:** A groups of college men viewed advertisements showing muscular men, whereas a control group viewed neutral advertisements. Immediately thereafter, participants performed a computerised test of body image perception while unaware of the hypotheses being tested in the study. **Results:** The students exposed to the muscular images showed a significantly greater discrepancy between their own perceived muscularity and that they ideally wanted to have. **Discussion:** These finding suggest that media images, even in brief presentation, can affect men's views of their bodies.

Materials: Advertisements taken from magazines or clothing catalogues featuring body-focused images of male models. The control condition used adverts with no models or non body-focused images of models.

**Lorenzen, L. A., Grieve, F. G., & Thomas, A. (2004). Exposure to muscular male models decreases men's body satisfaction. *Sex Roles*, 51, 743-748.**

The current study was designed to examine the effect of exposure to muscular ideal bodies on body satisfaction in men. College men ( $N = 104$ ) at a medium-sized mid-south university completed the Body Assessment (BA) scale, which measures body satisfaction, before and after exposure to either muscular or non-muscular advertisements. BA scores were examined using a repeated measures (pre and post) ANOVA with muscularity of image (view images of muscular men vs. view images of average men) as the between-participants factor. Results indicated that men's self-rated body satisfaction decreased after viewing images of muscular men but did not change after viewing images of average men. Thus, it appears that men's body satisfaction may be influenced by exposure to brief images of muscular models. These results are congruent with results of previous investigations of the effects of viewing images of thin models on women's body satisfaction.

Materials: Advertisements of either muscular or non-muscular men taken from popular men's magazines.

### ***Women and Men Respondents***

**Dens, N., De Pelsmacker, P. and Janssens, W. (2009). Effects of Scarcely Dressed Models in Advertising on Body Esteem for Belgian Men and Women. *Sex Roles*, 60, (5-6) 366-378.**

We explore how more revealing displays of models' bodies in advertising impact individuals' body esteem. The first study exposed a snowball sample of 215 Belgian men and women starting from a research department's database to an advertisement containing a male or female model in pyjamas or underwear. Scarcely dressed models had a negative effect on individuals' body esteem compared to dressed models, especially for opposite-sex models. The second study replicated the results of the first with a representative sample of 123 women from a consumer panel, using different models. Both scarce dress of the opposite-sex model and reported sexual arousal affected body esteem. Model attractiveness served as a moderator for same-sex models.

Materials: Magazine-style adverts created using either fully clothed models or scarcely clothed models.

**Diedrichs, P. C. and Lee, C. (2009) GI Joe or Average Joe? The impact of average-size and muscular male fashion models on men's and women's body image and advertisement effectiveness. *Body Image*, 7, (3) 218-226.**

Increasing body size and shape diversity in media imagery may promote positive body image. While research has largely focused on female models and women's body image, men may also be affected by unrealistic images. We examined the impact of average-size and muscular male fashion models on men's and women's body image and perceived advertisement effectiveness. A sample of 330 men and 289 women viewed one of four advertisement conditions: no models, muscular, average-slim or average-large models. Men and women rated average-size models as equally effective in advertisements as muscular models. For men, exposure to average-size models was associated with more positive body image in comparison to viewing no models, but no difference was found in comparison to muscular models. Similar results were found for women. Internalisation of beauty ideals did not moderate these effects. These findings suggest that average-size male models can promote positive body image and appeal to consumers.

Materials: Magazine-style adverts created using images of professional male models taking from modelling agency websites for the muscular condition, or photographs of average men taken by the authors for the average condition.

**Lavine, H., Sweeney, D., & Wagner, S.H. (1999). Depicting women as sex objects in television advertising: Effects on body dissatisfaction. *Personality and Social Psychology Bulletin*, 25, 1049-1058.**

This study examined whether exposure to TV ads that portray women as sex objects causes increased body dissatisfaction among women and men. Participants were exposed to 15 sexist and 5 non-sexist ads, 20 non-sexist ads, or a no ad control condition. Results revealed that women exposed to sexist ads judged their current body size as larger and revealed a larger discrepancy between their actual and ideal body sizes (preferring a thinner body) than women exposed to the non-sexist or no ad condition. Men exposed to the sexist ads judged their current body size as thinner, revealed a larger discrepancy between their actual and ideal body size (preferring a larger body), and revealed a larger discrepancy between their own ideal body size and their perceptions of others' male body size preferences (believing that others preferred a larger ideal) than men exposed to the non-sexist or no ad condition. Discussion focuses on the cognitive, attitudinal, and behavioural consequences of exposure to gender stereotypic television advertising.

Materials: Television advertisements taken from major TV channels featuring women portrayed as sex objects and women who were not.

## **Non-advertisements as stimuli**

*Women respondents*

**Behm-Morawitz, E., & Mastro, D. (2009). The Effects of the Sexualization of Female Video Game Characters on Gender Stereotyping and Female Self-Concept. *Sex Roles*, 61(11-12), 808-823.**

The present study utilized an experimental design to investigate the short term effects of exposure to sexualized female video game characters on gender stereotyping and female self-concept in emerging adults. Bussey and Bandura's

(1999) social cognitive theory of gender development and differentiation was used to explicate this relationship. Undergraduate students (N = 328) at a large U.S. Southwestern university participated in the study. Students were randomly assigned to play a "sexualized" heroine, a "non-sexualized" heroine, or no video game; then completed an online questionnaire. Female self-efficacy was negatively affected by game play with the sexualized female character. Results cautiously suggest that playing a sexualized video game heroine unfavourably influenced people's beliefs about women in the real world.

Materials: A video game featuring either a sexualized character or a non-sexualized character.

**Bell, B. T., Lawton, R., & Dittmar, H. (2007). The impact of thin models in music videos on adolescent girls' body dissatisfaction. *Body Image, 4*, 137–145.**

Music videos are a particularly influential, new form of mass media for adolescents, which include the depiction of scantily clad female models whose bodies epitomise the ultra-thin sociocultural ideal for young women. The present study is the first exposure experiment that examines the impact of thin models in music videos on the body dissatisfaction of 16–19-year-old adolescent girls (n = 87). First, participants completed measures of positive and negative affect, body image, and self-esteem. Under the guise of a memory experiment, they then either watched three music videos, listened to three songs (from the videos), or learned a list of words. Affect and body image were assessed afterwards. In contrast to the music listening and word-learning conditions, girls who watched the music videos reported significantly elevated scores on an adaptation of the Body Image States Scale after exposure, indicating increased body dissatisfaction. Self-esteem was not found to be a significant moderator of this relationship. Implications and future research are discussed.

Materials: Three conditions. In the experimental condition three music videos were viewed (PCD, Sugarbabes, Girls Aloud). In the first control condition only the artists singles were presented. The second condition involved no music videos, music, or appearance-related stimuli: respondents were presented with a list of 20 neutral words and asked to memorize them

**Bissell, K. L. (2006). Skinny like you: Visual literacy, digital manipulation and young women's drive to be thin. *Studies in Media and Information Literacy Education 6*. Retrieved 24th September, 2007, from <http://www.utpress.utoronto.ca/journal/ejournals/simile>**

Numerous studies have established a relationship between thin ideal media content and disordered eating patterns in women. Many of the images viewed in the media that endorse the thin ideal are digitally manipulated or computer-created. This experiment compared college women's visual literacy—defined in terms of their knowledge of digital manipulation in fashion and entertainment images—to their desire to be thin, their desire to look like the model shown and four disordered eating subscales. Visual literacy did not reduce participants' desire to look like the model seen; however, entertainment media was a significant predictor of greater body image distortion across the sample.

Materials: Images of swimsuit models accompanied by a statement indicating that the image had been edited to enhance the model's appearance. Two control conditions were used, one with no statement attached and one with no models or statement.

**Daniels, E. A. (2009). Sex Objects, Athletes, and Sexy Athletes How Media Representations of Women Athletes Can Impact Adolescent Girls and College Women. *Journal of Adolescent Research, 24*, (4) 399-422.**

In contrast to the large body of research examining the negative effects of idealized media images on girls' and women's body image, little research has investigated whether media images can positively impact body concept among females. Using a between-participants experimental design, this study examined how images of performance athletes, sexualized athletes, sexualized models, and non-sexualized models impacted adolescent girls' and college women's tendency to self-objectify. Participants were 350 adolescent girls and 225 college women who completed a measure of body objectification after viewing photographs. As expected, performance athlete images prompted less self-objectification, suggesting the need for more of this imagery in mainstream media.

Materials: Photographs of women from magazines, divided into four categories: Sexualised athletes, performance athletes, sexualised models and non-sexualised models.

**Hamilton, K., & Waller, G. (1993). Media influences on body size estimation in anorexia and bulimia: An experimental study. *British Journal of Psychiatry*, 162, 837-840.**

Anorexic and bulimic women overestimate their body sizes substantially more than comparison women, but little is known about the factors that influence this overestimation. This study examined the influence of media portrayal of idealised female bodies in women's fashion magazines. Comparison women were not affected by the nature of the photographs that they saw, but eating-disordered women were - they over estimated more when they had seen the pictures of women than when they saw photographs of neutral objects.

Materials: Images of women taken from popular women's magazines, with images from a 'beautiful homes' magazine as a control.

**Henderson-King, E. & Henderson-King, D. (1997). Media effects on women's body esteem: Social and individual difference factors. *Journal of Applied Social Psychology*, 27, 399-417.**

This study examined individual difference and social factors in moderating the effects of media images on women's body satisfaction. Participants heard a conversation wherein 2 people either were judgmental about a mutual friend's weight gain or discussed their friend's recent move. Participants then viewed slides which were either neutral or depicted "ideal" images of women. Results underscored the importance of individual differences. When exposed to ideal images, thinner women more positively evaluated their sexual attractiveness, while heavier women reported more negative self-evaluations. Compared to low self-monitors, high self-monitors who were exposed to ideal images were more positive about their physical condition. The findings demonstrate that media images do not similarly affect all women's body esteem.

Materials: Images of models found in popular women's magazines, used in conjunction with a scripted judgemental conversation about weight gain, compared with product advertisements and a neutral conversation.

**Irving, L. M. (1990). Mirror images: Effects of the standard of beauty on the self- and body-esteem of women exhibiting varying levels of bulimic symptoms. *Journal of Social and Clinical Psychology*, 9, 230-242.**

Authors in the field of eating disorders suggest that increasing preferences for thin body shapes in women may be related to recent increases in the prevalence of eating-related problems. Using a social comparison theory paradigm, this study looked at the impact of exposure to slides of thin, average and oversize models in the self-evaluations of 162 women exhibiting varying levels of self-reported bulimic symptoms. Contrary to the author's expectations, exposure to thin models was

related to lower self-evaluations regardless of the level of bulimic symptoms. Women reporting high levels of bulimic symptoms did, however, report a greater amount of pressure to be thin coming from media, peers, and family than did women reporting lower levels of symptoms. Results suggest that media have an impact on women's self evaluations regardless of their level of bulimic symptoms. Implications are discussed.

Materials: Images of thin fashion models taken from fashion magazines and one fashion catalogue, with a control condition using images of average sized women created for the study.

**Jimenez-Cruz, B. E. and Silva-Gutierrez, C. (2010) Risk for eating disorders, anxiety, depression and other emotions related to publicity images exposure. *Anales De Psicologia, 26, (1) 11-17.***

In order to explore the anxiety and depression levels, the emotions produced by images taken from media and risk for eating disorders, a total of 376 women participated in this test and post-test study, 140 of the participants were exposed to thin women images, 127 to overweight women images and 109 to women exercising or eating in a "healthy" way images. All participants were evaluated with the Eating Attitude Test (EAT-40), the State-Trait Anxiety Inventory (STAI), the Axelrod Adjective Checklist and an Emotion Questionnaire. Results revealed that depression and anxiety levels increased in all participants at risk for eating disorders after exposure to images, but levels decreased for the rest of the participants. However, participants exposed to thin women images reported more negative emotions towards their bodies than those who were exposed to overweight women images. Findings suggest that the ideal transmitted through media promote disgusting emotions in young women, which may put them at risk for eating disorders.

Materials: Images of slim, overweight or athletic women taken from magazines.

**Lavin, M. A., & Cash, T. F. (2000). Effects of exposure to information about appearance stereotyping and discrimination on women's body images. *International Journal of Eating Disorders, 29, 51-58***

*Objective*

There is widespread public dissemination of research findings and media messages regarding social advantages of physical attractiveness and liabilities of unattractiveness. The purpose of this experimental study was to determine the effects of such information on women's body-image experiences.

*Method*

College women ( $n = 66$ ) listened to one of two audiotapes that detailed research-based information either on the subject of appearance stereotyping and discrimination or on the control topic of television violence and aggression.

*Results*

Although the two conditions did not differentially alter mood, exposure to appearance-related versus control information produced significantly less favourable body-image evaluations. Furthermore, as predicted, women who were schematically invested in their physical appearance were especially susceptible to the deleterious effects of the appearance information.

*Discussion*

The scientific and clinical implications of these findings were discussed, particularly with respect to eating disturbances

Materials: two audio tapes, one with information about appearance biases and discrimination. This included social stereotypes and benefits of physical attractiveness, as well as social prejudice and discrimination against physically unattractive children and adults. The control tape was equal length, on the topic of television violence and aggression.

**Lin, L. F., & Kulik, J. A. (2002). Social comparison and women's body satisfaction. *Basic and Applied Social Psychology, 24*, 115–123**

Exposure to pictures of thin-ideal female members of the media has been shown to reduce body satisfaction in women, which in turn has been implicated in various eating disorders. This experiment was designed principally to determine how social comparisons with peers affect general self-esteem, body satisfaction, confidence, and anxiety. In a "dating game" scenario, female undergraduates (N = 67) were randomly assigned to a thin-peer, oversize-peer, or control (no-photo) condition. Through computer manipulation, photos depicted the same woman's face with either a thin or oversize body shape. Results indicated comparison condition did not affect general self-esteem. However, exposure to the thin peer did reduce body satisfaction and confidence and, for those without a boyfriend, raised anxiety. Exposure to an oversize peer produced no compensatory, elevating effects on body satisfaction and confidence. Such an asymmetric comparison effect may contribute to the high prevalence of body dissatisfaction reported among women.

Materials: A photograph of an attractive female's face, edited onto either a thin female's body or an overweight female's body.

**Ogden, J & Sherwood, F. (2008) Reducing the impact of media images: An evaluation of the effectiveness of an air-brushing educational intervention on body dissatisfaction. *Health Education, 108*, pp.489 – 500.**

*Purpose* – This experimental study seeks to explore the impact of media images on women's body dissatisfaction and to assess whether this impact could be reduced by an educational intervention describing the power of air-brushing.

*Design/methodology/approach* – The study involved a 2x2 factorial design with two conditions: picture (thin vs. fatter) and air-brushing intervention (present vs. absent). A total of 200 women completed measures of body dissatisfaction before and after viewing the experimental information. *Findings* – The results showed that women felt consistently more dissatisfied with their bodies after viewing thin pictures and more satisfied after viewing fatter pictures. In addition, the air-brushing intervention reduced the detrimental effect of viewing the thinner pictures but had no effect on the benefits of viewing the fatter pictures. *Originality/value* – Media images may have a role to play in body dissatisfaction in women. But a simple intervention focusing on air-brushing can facilitate a more critical perspective and thus provide a buffer against the influence of media images.

Materials: Images of thin women which were digitally modified and used as images of overweight women.

**Pinhas, L., Toner, B. B., Ali, A., Garfinkel, P. E., & Stuckless, N. (1999). The effects of the ideal of female beauty on mood and body satisfaction. *International Journal of Eating Disorders, 25*, 223-226.**

**Abstract:** Objective: The present study examined changes in women's mood states resulting from their viewing pictures in fashion magazines of models who represent a thin ideal. Method: Female university students completed the Profile of Mood States (POMS), the Body Parts Satisfaction Scale (BPSS), and the Eating Disorder Inventory (EDI). They were then exposed to 20 slides; the experimental group (N = 51) viewed images of female fashion models and a control group (N = 67) viewed slides containing no human figures. All subjects then completed the POMS and the BPSS again. Results: Women were more depressed ( $R^2 = 0.745$ ,  $p < .05$ ) and more angry ( $R^2 = 0.73$ ,  $p < .01$ ) following exposure to slides of female fashion models. Discussion: Viewing images of female fashion models had an immediate negative effect on women's mood. This study, therefore, supports the hypothesis that media images do play a role in disordered eating. © 1999 by John Wiley & Sons, Inc. Int J Eat Disord 25: 223–226, 1999.

Materials: Images of models taken from fashion magazines with images not containing models used as a control.

**Posavac, H. D., Posavac, S. S., & Posavac, E. J. (1998). Exposure to media images of female attractiveness and concern with body weight among young women. *Sex Roles*, 38, 187-201.**

Despite the popular belief that the thin standard of female attractiveness currently presented in the media is a primary contributor to the high level of concern with body weight among women, experimental studies have not shown that exposure to media images in creases women's weight concern. Three experiments are reported demonstrating that exposure to media images does often result in increased weight concern among women, but that body dissatisfaction, a stable personality characteristic, is a moderator of vulnerability to this effect. Although most women reported higher weight concern when exposed to media vs. neutral images, women with low initial body dissatisfaction did not. In addition, this research suggests that negative effects on weight concern may result from even passive exposure to media images, but that exposure to realistic attractiveness is less likely to cause increased weight concern. The ethnicity of the participants in these studies reflected that of the local population, with over 90% white. The non-white participants primarily belonged to one of the following groups; Asian, Pacific Islander, Latino.

Materials: Images of models taken from popular women's magazines with images of automobiles used as controls. The second experiment also included images of 'realistic' women attending universities.

**Posavac, H. D., Posavac, S. S. & Weigel, R. G. (2001). Reducing the impact of media images on women at risk for body image disturbance: Three targeted interventions. *Journal of Social and Clinical Psychology*, 20, 324-340.**

Recent research has shown that exposure to the ideal thin standard of female beauty commonly presented in advertising and the broader media contributes to body image disturbance among women. Researchers have proposed that social comparison processes underlie this phenomenon; women may routinely compare their bodies with images of feminine beauty contained in the media and consequently become less satisfied with their own bodies. This study reports the evaluation of three interventions that were designed to prevent women from experiencing body image disturbance when exposed to media images by interrupting the social comparison process. Experimental data suggest that all three interventions (a) decreased the likelihood of female participants comparing their bodies with media images, and (b) prevented media-induced body image disturbance. The content of the interventions, and implications for the treatment and prevention of body image disturbance and eating disorders are discussed.

Materials: Images of models taken from popular women's magazines with images of automobiles used as controls. Interventions used were either focused on the editing of images of models, models' genetic disposition to be below the average size, a combination of these two or a control intervention about parenting styles.

**Tiggemann, M., & Slater, A. (2004). Thin ideals in music television: A source of social comparison and body dissatisfaction. *International Journal of Eating Disorders*, 35, 48-58**

*Objective*

The study investigated the impact of thin idealized images of women as presented in music television, a popular form of entertainment for young people.

*Methods*

A sample of 84 women viewed a videotape containing either appearance music videos (which emphasized appearance and featured thin and attractive women) or

nonappearance music videos. The instructional set was also manipulated to encourage or discourage social comparison.

#### *Results*

Viewing the appearance music videos featuring thin women led to increased social comparison and body dissatisfaction. Regression analyses showed that the effect of video condition on body dissatisfaction was mediated by the level of comparison processing.

#### *Discussion*

The study demonstrated that the content of television programming can have negative consequences for women's body image. In addition, it offered social comparison processing as both a theoretic mechanism and a practical target for intervention

*Materials: Segments of music videos featuring either thin and attractive models or featuring ordinary looking women and few shots of people.*

#### **Trampe, D., Stapel, D. A., & Siero, F. W. (2007). On models and vases: Body dissatisfaction and proneness to social comparison effects. *Journal of Personality and Social Psychology*, 92, 106–118**

When and why do media-portrayed physically attractive women affect perceivers' self-evaluations? In 6 studies, the authors showed that whether such images affect self-evaluations depends jointly on target features and perceiver features. In Study 1, exposure to a physically attractive target, compared with exposure to an equally attractive model, lowered women's self-evaluations. Study 2 showed that body-dissatisfied women, to a greater extent than body-satisfied women, report that they compare their bodies with other women's bodies. In Study 3, body-dissatisfied women, but not body-satisfied women, were affected by both attractive models and non-models. Furthermore, in Study 4, it was body dissatisfied women, rather than body-satisfied women, who evaluated themselves negatively after exposure to a thin (versus a fat) vase. The authors replicated this result in Study 5 by manipulating, instead of measuring, body dissatisfaction. Finally, Study 6 results suggested that body dissatisfaction increases proneness to social comparison effects because body dissatisfaction increases self-activation.

*Materials: An image of an attractive and thin girl or an unattractive and heavier girl. A description of the girl was attached, and in one condition she was described as a professional model.*

#### **Tucci, S., & Peters, J. (2008). Media influences on body satisfaction in female students. *Psicothema*, 20, 521–524**

The present study examined the immediate impact of media portrayals on evaluations of body shape and disordered eating symptomatology in female undergraduates. By using a repeated measures design, participants (N= 42) were exposed on two consecutive occasions to magazine images representing the thin-ideal physique and overweight models. Body satisfaction was recorded both before and after exposure to the images and eating disorder symptomatology was measured following both exposures. Results showed that participants' body satisfaction scores decreased following exposure to the thin-ideal physique and increased following exposure to the larger models. When analysing eating disorder symptomatology, body dissatisfaction and drive for thinness were higher following exposure to slender media images compared to the larger media images. However, exposure to the thin-ideal physique did not increase disordered eating behaviours. These results provide evidence that one brief exposure to media images could exert immediate impact on some behaviours, attitudes and perceptions.

*Materials: Images of thin celebrity models or of larger celebrities.*

**Want, S. C., Vickers, K. and Amos, J. (2009). The Influence of Television Programs on Appearance Satisfaction: Making and Mitigating Social Comparisons to "Friends". *Sex Roles*, 60, (9-10) 642-655.**

Studies of "media effects" on women's appearance satisfaction have focused largely on images from fashion magazines and television commercials, and rarely on images from television programs. The present study reports on the effects of experimental exposure to a television situation-comedy depicting thin and highly physically-attractive characters on appearance satisfaction in Canadian undergraduate women (N = 76) from a large, ethnically-diverse, metropolitan area. The results demonstrate a detrimental effect on participants' satisfaction with their overall appearance, as measured on a Visual Analogue Scale (VAS). This result is interpreted in line with social comparison theory. In addition, exposure to written intervention material, designed to remove the basis for social comparison with television images, was shown to be effective in mitigating this effect.

Materials: The first 10 minutes of the TV program "Friends".

**Watts, K., Cranney, J. and Gleitzman, M. (2008). Automatic evaluation of body-related images. *Body Image*, 5, (4) 352-364.**

An affective priming task was used to determine whether females automatically evaluate body-related images, and to establish whether this is moderated by appearance schematicity, thin internalisation, body dissatisfaction, and dietary restraint. In a within participants design, the valence congruence of the prime and target pairs was manipulated, as was the interval between them. Undergraduate females (N=87, Experiment 1 and N=72, Experiment 2) individually selected colour images as the primes. Each prime was presented briefly, followed by a target word which the participant judged as "good" or "bad". The dependent variable was response latency to the target word. Automatic evaluation was evident; responding to congruent pairs was faster than responding to incongruent pairs. The individual difference variables were not related to automaticity. The findings suggest that brief encounters with body-related images are likely to produce automatic affective responses in young women irrespective of body-related concerns

Materials: Images of body parts and shapes taken from either women's magazines or an image database.

**Wegner, B. S., Hartmann, A. M., & Geist, C. R. (2000). Effect of exposure to photographs of thin models on self-consciousness in female college students. *Psychological Reports*, 86, 1149–1154**

The purpose of this study was to assess the immediate influence of brief exposure to images taken from print media on the general self-consciousness and body self-consciousness of 67 college women. After viewing photographs of either thin female models or control photographs, the women completed the Self-consciousness Scale and the Body Self-consciousness Questionnaire. Although alpha was .45, the college women who looked at images of thin female models gave immediate ratings significantly ( $p < .001$ ) higher on both general Self-consciousness and Body Self-consciousness than those who looked at control images.

Materials: two sets of 12 photograph, the first taken from popular magazines, of thin and attractive models. The second comprised older women and men, as well as children.

**Yamamiya, Y., Cash, T. F., Melnyk, S. E., Posavac, H. D., & Posavac, S. S. (2005). Women's exposure to thin-and-beautiful media images: Body image effects of media-ideal internalization and impact-reduction interventions. *Body Image*, 2, 74–80**

Exposure to media images of thin-and-beautiful women negatively affects the body image and mood states of young women. However, not all women are equally susceptible to these effects. The present experimental investigation with 123 young college women evaluated the moderating effects of the extent of internalization of media ideals. It also examined the preventative impact of two brief interventions (i.e., media literacy information with and without a dissonance-induction procedure). Results indicated that relative to a control group, the exposure to thin-and-beautiful media images adversely influenced the state body image of participants with high internalization levels. Media-literacy psychoeducation prior to the media exposure prevented this adverse effect. Adding a pre-exposure dissonance-induction procedure did not significantly enhance the preventative effects relative to psychoeducation alone. These results and their implications for the treatment and prevention of body image disturbances are discussed in the context of the empirical literature on the media's effects on body image.

Materials: Images of fashion models taken from women's magazines, with images of automobiles as a control.

**Zhang, Y. Y., Dixon, T. L. and Conrad, K. (2009). Rap Music Videos and African American Women's Body Image: The Moderating Role of Ethnic Identity. *Journal of Communication, 59, (2) 262-278.***

The purpose of this study was to examine the relationship between exposure to thin ideals in Black-oriented programming and young Black women's body image disturbance, specifically addressing the moderating role of ethnic identity. Items gauging exposure to 30 rap music videos with different body size ratings were used to measure exposure to thin-ideal images among a sample of 111 Black female undergraduate students. Findings show that there was no main effect of exposure to thin-ideal rap videos on Black women's body image disturbance. Instead, the impact of media exposure was shaped by viewers' strength of ethnic identity. For Black women with stronger ethnic identity, viewing thin-ideal rap videos was related to less body dissatisfaction, less drive for thinness, and lower bulimia action tendencies. For Black women with weaker ethnic identity, reverse results were observed. The implications of these findings are discussed.

Materials: Popular rap music videos which featured women with ideal thin bodies.

### *Men respondents*

**Arbour, K., P. & Martin Ginis, K., A. (2006) Effects of exposure to muscular and hypermuscular media images on young men's muscularity dissatisfaction and body dissatisfaction. *Body Image, 3, 153-161.***

This study examined the effects of exposure to muscular and hypermuscular media images on young men's body images, and the moderating roles of baseline body dissatisfaction (BD) and muscularity dissatisfaction (MD). Men (M age = 21.9, SD = 2.8) were exposed to pictures of muscular (n = 34) or hypermuscular (n = 29) male physiques throughout a 30-min health seminar. In support of the study hypotheses, higher levels of baseline BD and MD were associated with greater post-seminar BD and MD. In addition, MD moderated the effects of the exposure conditions on BD; greater baseline MD was associated with greater post seminar BD, but only among men who viewed the muscular images. These results speak to the importance of pre-existing muscularity concerns in determining men's reactions to muscular physique images, and suggest that exposure to the media ideal of muscularity, and not muscularity per se, elicits body dissatisfaction in men with pre-existing muscularity concerns.

Materials: 45 images of "hypermuscular" men, (e.g., hypermuscular chest and arm muscles, wide shoulders, narrow waist) obtained from various body-building and weight-training magazines, and 45 images of moderately muscular male physiques

(i.e., toned, yet not overly muscular) obtained from various health and fitness magazines and websites.

**Barlett, C. P., Harris, R. J., Smith, S., & Bonds–Raacke, J. (2005). Action figures and men. *Sex Roles*, 53, 877–885.**

Three studies were conducted to determine whether action figures contributed to negative body images in the young adult men who handled them. In Study 1 and Study 2, participants were randomly assigned to different conditions to handle action figures with different muscularity levels. The participants were instructed to place the action figures into various positions for a set time limit. Following the action figure manipulation, the participants completed scales to assess aspects of their body images (i.e., self-esteem, body esteem, and body satisfaction). Overall, the results indicate that touching and manipulating the more unrealistically muscular action figures significantly decreased participants' body esteem. In Study 3, we used a more realistic figure whose muscularity was more like an average man's. Following the same procedure as in Study 1 and Study 2, results showed that there was no significant difference between this action figure and the control group on all of the body image scales.

Materials: In study 1, participants in the highly muscular condition handled three identical WWE Flex'ems action figures, while those in the moderately muscular group handled three identical WWE Tag-Teamers action figures. The two types were similar in height, both had their shirts off and they wore similar clothing. The control group did not handle action figures. In study 2, two action figures with similar levels of muscularity, but with different heights, were used; Battle Action Hulk (Big Hulk) and Rapid Punch Hulk (Little Hulk). In study 3, participants handled a more realistic toy; Ken, who is less muscular. Participants handled the figures for 20-30 minutes in all three studies.

**Hobza, C.L., Walker, K.E., Yakushko, O. & Peugh, J.L. (2007). What about men? Social comparison and the effects of media images on body and self-esteem. *Psychology of Men & Masculinity*, 8(3), 161-172.**

Research has consistently shown that exposure to ideal female images negatively influences women's self-evaluations (e.g., Brown, Novick, Lord, & Richards, 1992; Henderson-King, Henderson-King, & Hoffman, 2001). However, minimal research has examined the effects of media-portrayed male images on men's self-evaluations. This article presents an exploratory investigation into the impact of media on men's views of themselves and their bodies. It was hypothesized that compared to men who viewed neutral images, men who viewed ideal physical images of other men or images depicting status and wealth would report lower levels of body esteem and self-esteem. Analysis revealed significant group differences on the Physical Condition and Physical Attractiveness subscales of the Body Esteem Scale (BES; Franzoi & Shields, 1984); however, no significant differences in group scores emerged on the State Self-Esteem Scale (SSES; Heatherton & Polivy, 1991). In general, these findings fit with current literature regarding media effects on men. Limitations, applications, and future research considerations are discussed.

Materials: Participants in the physical-image condition viewed slides depicting men with large muscles and toned physiques and those in the resource-image condition viewed slides of men of status, both obtained from popular men's magazines. In the image-neutral condition, slides contained advertisements for household items, with few human images.

**Hobza, C. L. and Rochlen, A. B. (2009). Gender Role Conflict, Drive for Muscularity, and the Impact of Ideal Media Portrayals on Men. *Psychology of Men & Masculinity*, 10, (2) 120-130.**

The current study examined the effects of exposure to ideal print-based masculine images on men's body esteem, self-esteem, and drive for muscularity. Eighty-two college-age men were exposed to magazine images of muscular men or neutral images. Supporting the authors' hypotheses, men who viewed muscular images reported significantly lower body esteem than men in the neutral (control) group. The hypotheses regarding the impact of media portrayals on self-esteem and drive for muscularity as well as the moderating effects of gender role conflict and drive for muscularity were not supported. Findings are discussed within the context of related theory and research on men's body image, and suggestions for further research are provided.

Materials: Photographs of muscular men taken from magazines, with images showing only objects without people as a control.

### *Women and Men Respondents*

**Barlett, C. P., & Harris, R. J. (2008). The impact of body emphasizing video games on body image concerns in men and women. *Sex Roles*, 59(7-8), 586-601.**

Two studies were conducted to determine if playing a video game that emphasized the body would increase negative body-image. Both studies [study 1 (N = 51); college-aged males from the Midwestern USA; and study 2 (N = 32); college-aged females from the Midwestern USA] had participants complete body image measures, play a video game that displayed muscular or thin characters for 15 min, and then complete post-game body image measures. Results showed that participants in both studies had significantly lower body esteem after video game play. Further, these findings were independent of the time spent playing video games and body mass index. This suggests that video games have a negative influence on the body-image of players.

Materials: Video games featuring characters with 'ideal' bodies.

**Cahill, S. and Mussap, A. J. (2007). Emotional reactions following exposure to idealized bodies predict unhealthy body change attitudes and behaviours in women and men. *Journal of Psychosomatic Research*, 62, (6) 631-639.**

Objective: We explored the extent to which changes in emotional states following exposure to images of idealized bodies predict unhealthy body change attitudes and behaviours in women and men, and whether particular psychological traits mediate these effects. Method: One hundred thirty-three women and 93 men were assessed for unhealthy attitudes and behaviours related to body weight and muscles using the Eating Disorder Inventory-2 (EDI-2), the Obligatory Exercise Questionnaire, and the strategies to increase muscles subscale of the Body Change Inventory.

Psychological traits assessed included body dissatisfaction (EDI-2), internalization of the thin/athletic ideal (Sociocultural Attitudes Towards Appearance Questionnaire-3), body comparison (Body Comparison Scale), self-esteem (Rosenberg Self-Esteem Inventory), depression (Beck Depression Inventory-II), and identity confusion (Self-Concept Clarity Scale). Participants were then exposed to photographs of thin female models and muscular male models, and visual analogue scales were used to measure changes in post-exposure state body dissatisfaction, anger, anxiety, and depression. Results: Post-exposure increases in state anger, anxiety, depression, and body dissatisfaction correlated with drive for thinness and disordered eating symptomatology in women, while post-exposure increases in state body dissatisfaction correlated with muscle development in men. Analyses revealed that internalization and body comparison mediated these relationships, with trait body

dissatisfaction, trait depression, self-esteem, and self-concept/identity confusion serving as mediators for women only. Conclusion: These results are indicative of gender differences in: (a) reactions to idealized bodies; (b) psychological traits that predispose individuals to experience these reactions; and (c) types of body change behaviour that are associated with these reactions.

Materials: Photographs of thin female models or muscular male models.

**Grogan, S., Williams, Z., & Conner, M. (1996). The effects of viewing same-gender photographic models on body-esteem? *Psychology of Women Quarterly, 20*, 569-575.**

This study was designed to investigate the effects of viewing same gender photographic models on women and men's body-esteem. Women and men completed body-esteem scales before and after viewing pictures of same-gender photographic models (experimental group) or landscapes (control group). Women scored significantly lower than men on the body-esteem scale [ $F(1, 90) = 58.5, p < .001$ ]. Women [ $F(1, 90) = 8.70, p < .05$ ] and men [ $F(1, 90) = 4.17, p < .05$ ] in the experimental group showed a significant decrease in body-esteem after seeing the photographs and the controls showed no significant change [women  $F(1, 90) = 0.57$ ; men  $F(1, 90) = 0.00$ ]. Results suggest that upward comparisons are made by women and men when viewing attractive same-gender models.

Materials: Sixteen pictures of each sex were taken from popular magazines matched for accentuated body part, pose and attractiveness, plus sixteen pictures of landscapes from non-fashion magazines.

**Harrison, K., Taylor, L. D., & Marske, A. L. (2006). Women's and Men's Eating Behavior Following Exposure to Ideal-Body Images and Text. *Communication Research, 33*(6), 507-529.**

Two experiments tested the effects of exposure to ideal-body images and text on young adults' eating behaviour. Women viewed slides depicting images of slender female models with no text, with diet- and exercise-related (congruent) text, with irrelevant (incongruent) text, or no slides (control). Men viewed slides depicting images of muscular male models in the same four conditions. Among women with a discrepancy between perceptions of their actual body and the body their same-gender peers believe they ought to have, exposure to images alone and images plus congruent text led to a reduction in the amount eaten in front of female peers. Among men with the same discrepancy, exposure to images alone and images plus congruent text led to an increase in the amount eaten in front of male peers. The distinctions between ideal-body images and text as stimuli, and between male and female eating behaviours as self-presentational strategies, are considered in the discussion.

Materials: Images of either muscular males or thin females taken from magazines, combined with either body-improvement related text or text which was not relevant to the images.

**Kalodner, C. R. (1997). Media influences on male and female non-eating disordered college students: A significant issue. *Eating Disorders: The Journal of Treatment and Prevention, 5*, 47-57.**

Few studies have addressed the importance of media influence on persons who do not have an eating disorder. These persons are usually considered a control group. However, the influence of the media on non-eating-disordered females and males is a significant issue. The purpose of this study is to assess the immediate impact of very brief exposure to images taken from media on the self-consciousness and anxiety of male and female college students. There was a significant effect of looking at pictures of thin models on female participants only. In the group of college women who looked at pictures of thin female models, there were significantly higher levels of

private self-consciousness, body competence, and state anxiety. For the male college students, there were no differences in self-consciousness or anxiety between those who looked at the pictures of thin male models and those who looked at control pictures.

Materials: Images of slim women and muscular men taken from popular magazines, with images of older people or infants as a control.

**Markey, C. N. and Markey, P. M. (2009) A correlational and experimental examination of reality television viewing and interest in cosmetic surgery. *Body Image, 7, (2) 165-171.***

Two studies are presented that examine the influence of media messages about cosmetic surgery on youths' interest in altering their own physical appearance. In Study 1, 170 participants (59% female; M age = 19.77 years) completed surveys assessing their impression of reality television shows featuring cosmetic surgery, appearance satisfaction, self-esteem, and their interest in cosmetic surgery. Results indicated that participants who reported favourable impressions of reality television shows featuring cosmetic surgery were more likely to indicate interest in pursuing surgery. One hundred and eighty-nine participants (51% female; M age = 19.84 years) completed Study 2. Approximately half of the participants were exposed to a television message featuring a surgical make-over; the other half was exposed to a neutral message. Results indicated that participants who watched a television program about cosmetic surgery wanted to alter their own appearance using cosmetic surgery more than did participants who were not exposed to this program.

Materials: Television shows focusing on self-improvement through cosmetic surgery.

**Ogden, J. & Munday, K. (1996). The effect of the media on body satisfaction: The role of gender and size. *European Eating Disorders Review, 4, 171-182.***

Media images of stereotypically attractive women are often cited as contributory factors in body size distortion and body dissatisfaction. In fact, recent research suggests that acute exposure to such images may exacerbate body distortion in women with eating disorders. The present study examined the effects of acute exposure to images of stereotypical attraction (thin pictures) compared to images of overweight individuals (fat pictures) in both men and women. Twenty men and 20 women completed measures of body satisfaction before and after viewing images of either thin or overweight individuals matched for the subject's gender. The results suggested that subjects of both gender reported feeling less satisfied with their bodies as measured by rating sc&s (e.g. feeling fat, feeling attractive), body silhouettes and body size estimation, after viewing the thin pictures and showed improved body satisfaction after viewing the overweight pictures. The results also suggested that this response was greater in the female than in the male subjects for some of the measures (e.g. feeling fat, feeling tuned) and was unrelated to levels of restrained eating. The results are discussed in terms of the role of the media in determining body image and the possible use of such images in clinical practice.

Materials: Images of either thin or overweight males and females taken from magazines.

### 3. Correlational studies

These studies examine whether body dissatisfaction is linked to how much media exposure, or pressure from the media, is reported by respondents. They cannot establish cause-effect relationships.

#### *Women respondents*

**Abramson, E., & Valene, P. (1991). Media use, dietary restraint, bulimia, and attitudes toward obesity: A preliminary study. *British Review of Bulimia and Anorexia Nervosa*, 5, 73–76**

Clinicians and theorists have frequently suggested that the mass media's unfavourable portrayal of overweight women and the glorification of slenderness have contributed to negative attitudes towards fat women, preoccupation with dieting and bulimia. To assess these hypothesized relationships 167 college students completed a questionnaire which included a measure of mass media usage, attitudes towards obesity, the Restraint Questionnaire and the Bulimia Test. Significant correlations were found between media use and Restraint, and media use and bulimic behaviours. Cautions in interpreting the correlational data are suggested.

**Ahern, A. L., Bennett, K. M., & Hetherington, M. M. (2008). Internalization of the ultra-thin ideal: Positive implicit associations with underweight fashion models are associated with drive for thinness in young women. *Eating Disorders: The Journal of Treatment & Prevention*, 16(4), 294-307.**

This study examined whether young women who make implicit associations between underweight models and positive attributes report elevated eating disorder symptoms. Ninety nine female undergraduates completed a weight based implicit association test (IAT) and self report measures of body dissatisfaction, thin-ideal internalization and eating disorder symptoms. IAT scores were associated with drive for thinness ( $r = -0.26$ ,  $p < 0.05$ ). This relationship was moderated by attitude importance. The relationship between drive for thinness and IAT scores was stronger ( $r = 0.34$ ;  $p < 0.02$ ) in participants who report that the media is an important source of information about fashion and being attractive. The IAT used in the current study is sensitive enough to discriminate between participants on drive for thinness. Women who have developed cognitive schemas that associate being underweight with positive attributes report higher eating disorder symptoms. Attitude importance is highlighted as a key construct in thin ideal internalization.

**Anschutz, D. Engels R., and van Strien, T. (2008). Susceptibility for thin ideal media and eating styles. *Body Image*, 5, (1) 70-79**

This study examined the relations between susceptibility for thin ideal media and restrained, emotional and external eating, directly and indirectly through body dissatisfaction. Thin ideal media susceptibility, body dissatisfaction and eating styles were measured in a sample of 163 female students. Structural equation modelling was used for analyses, controlling for BMI. Higher susceptibility for thin ideal media was directly related to higher scores on all eating styles, and indirectly related to higher restrained and emotional eating through elevated levels of body dissatisfaction. So, thin ideal media susceptibility was not only related to restraint through body dissatisfaction, but also directly. Emotional eaters might be more vulnerable for negative affect, whereas external eaters might be more sensitive to external cues in general.

**Cheng, H. L. and Mallinckrodt, B. (2009). Parental Bonds, Anxious Attachment, Media Internalization, and Body Image Dissatisfaction: Exploring a Mediation Model. *Journal of Counselling Psychology*, 56, (3) 365-375.**

The first purpose of this study was to investigate direct links between body image dissatisfaction (BID) in college women and their memories of either parent as cold and emotionally aloof. Theory, clinical case evidence, and a small (but growing) number of studies support these links. After estimating the strength of the associations between parental "care" and BID, the second goal of this study was to investigate a 2-stage model in which adult attachment anxiety and internalization of media images each serve as mediators of this relationship. Thus, in a sample of 224 college women, the authors tested a causal chain with 3 links and 4 sets of variables. Results suggested that both mother and father care were negatively associated with attachment anxiety; attachment anxiety was positively associated with internalization of media influence; and media influence was positively associated with BID. Most important; the authors found that the significant negative associations between mother and father care and BID were mediated by both attachment anxiety and media internalization. The data supported a 2-stage mediation model of hypothesized links of BID etiology.

**Cusumano, D. L & Thompson, J. K. (1997). Body image and body shape ideals in magazines: Exposure, awareness, and internalization. *Sex Roles*, 37, 701-721.**

Three aspects of a sociocultural influence on appearance--media exposure, awareness of societal ideals, and internalization of sociocultural messages--were assessed in college females (75% White, 7% Black, 10% Hispanic, 7% Asian or Pacific Islander, and 1% other) and related to measures of body image disturbance, eating dysfunction, and overall self-esteem. The exposure variable consisted of an empirically derived index of coded body shape images from magazines specifically selected because of their high readership in the tested sample of females. Awareness of societal pressures regarding appearance and internalization of these messages were measured with the two subscales of the Sociocultural Attitudes Towards Appearance Questionnaire. Correlational and regression analyses failed to find any relationship between simple exposure and indices of body image, eating dysfunction, and self-esteem. Awareness of societal pressures was a significant predictor in regression analyses; however, internalization of social standards of appearance accounted for significant and substantial levels of variance beyond that explained by awareness. The findings are discussed in light of recent cognitive-behavioural and psychoeducational interventions for body image disturbance.

**Kim, J.-H., & Lennon, S. J. (2007). Mass media and self-esteem, body image, and eating disorder tendencies. *Clothing & Textiles Research Journal*, 25(1), 3-23.**

This study examines whether the level of exposure to mass media is related to self-esteem, body image, and eating disorder tendencies in a non-experimental setting based on Festinger's social comparison theory. A convenience sample of 114 female college students participated in this study. Significant positive relationships between exposure to fashion or beauty magazines and (a) overall appearance dissatisfaction and (b) eating disorder tendencies were found. No relationship resulted from television exposure. In addition, risk of eating disorder tendencies was associated with (a) low self-esteem, (b) body dissatisfaction, and (c) overall appearance dissatisfaction.

**Kozar, J. M. and Damhorst, M. L. (2009). Comparison of the Ideal and Real Body as Women Age Relationships to Age Identity, Body Satisfaction and**

**Importance, and Attention to Models in Advertising. *Clothing and Textiles Research Journal*, 27, (3) 197-210.**

This study examines the relationship between age, body image, and women's proclivity to compare themselves with fashion models. A sample of 281 women between the ages of 30 and 80 participated in this study. Significant positive relationships between social comparison behaviour and (a) appearance self-discrepancy and (b) the importance placed on achieving ideal appearance were found. A significant inverse relationship between social comparison behaviour and body satisfaction was also observed. Participants older in age were found to be less likely to compare themselves with fashion models. However, the younger that participants felt they were, the more inclined they were to compare themselves with models. Participants who reported a larger difference between their ideal and actual age perceived more discrepancy between their ideal and actual appearance, were generally more dissatisfied with their body and appearance, and were more likely to compare themselves with fashion models.

**Lin, L. and Reid, K. (2008). The relationship between media exposure and antifat attitudes: The role of dysfunctional appearance beliefs. *Body Image*, 6, (1) 52-55.**

This study examined the relationship between media exposure, anti-fat attitudes, and body dissatisfaction, as well as the mediating effect of dysfunctional appearance beliefs. A sample of 112 women completed surveys measuring media exposure, anti-fat attitudes, body dissatisfaction, and dysfunctional beliefs about appearance. It was found that time spent reading fashion magazines was positively correlated with anti-fat attitudes and that this relationship was mediated by dysfunctional beliefs about appearance. Measures of anti-fat attitudes and body dissatisfaction were both found to be correlated with endorsement of dysfunctional beliefs about appearance and body mass index. Results suggest that time spent reading fashion magazines may be related to anti-fat attitudes through dysfunctional appearance beliefs

**Madanat, H. N. Brown, R. B. and Hawks, S. R. (2007). The impact of body mass index and Western advertising and media on eating style, body image and nutrition transition among Jordanian women. *Public Health Nutrition*, 10, (10) 1039-1046.**

Objectives: To identify the impact of body mass index (BMI) and Western advertising and media on the stage of the nutrition transition among Jordanian women, and to evaluate their impact on eating styles and body image. Design: A randomised cross-sectional survey that included a variety of culturally measured Likert-type scales and body size images. In addition, BMI was calculated based on measured height and weight. Setting: In the homes of the participants. The data were collected by female interviewers who worked for the Jordan Department of Statistics. Subjects: The sample was based on a random and representative selection of 800 mostly urban Jordanian women. A pre-test sample of 100 women was also used to validate the instruments. Results: Women tended to agree that they ate based on emotional cues. They had high levels of disordered eating attitudes and behaviours and 42.1% were considered restrained eaters. However, these women also had higher than expected body esteem levels and desired a healthy body size. As expected, being obese was associated with a desire to lose weight, being a restrained and emotional eater, and having more disordered eating attitudes and behaviours. Similarly, Western advertising and media were associated with restrained and emotional eating, desired weight loss, and disordered eating attitudes and behaviours. Conclusions: There is a need to develop health education in materials that explain the influence of obesity on health and the negative psychological and physical consequences of restrained and emotional eating, building on the current cultural

preferences of healthy body size. Further implications and suggestions for future research are discussed.

**Murray, S. H., Touyz, S. W., & Beumont, P. J. V. (1996). Awareness and perceived influence of body ideals in the media: A comparison of eating disorder patients and the general community. *Eating Disorders: The Journal of Treatment and Prevention*, 4, 1, 33-46.**

Few studies have empirically investigated the role of the mass media in the aetiology of eating disorders. This study investigates the reported awareness of media body ideals among a group of eating disorder patients and a community sample, together with the reported influence of these ideals on subjects' body shape- and weight-related attitudes and behaviours. Patients with eating disorders were significantly more likely than controls to report being influenced by the body ideals presented in the media. Our findings suggest that treatment programs for eating disorders may need to address directly the images and ideals presented in the media.

**Park, S.-Y. (2005). The influence of presumed media influence on women's desire to be thin. *Communication Research*, 32, 594-614**

This study investigated the effect of magazine use on the desire to be thin within the theoretical framework of presumed influence. Structural equation modelling supported the hypothesis that reading beauty and fashion magazines increased the drive for thinness both directly and indirectly. The indirect pathway included the perceived prevalence of the thin ideal in mass media, the presumed influence of the thin ideal on others, and the perceived influence of the thin ideal on self. Social pressure to be thin may be based both on reality and the presumption of influence on others. Results suggest potential strategies for intervention.

**Rodgers, R. F., Salès, P., & Chabrol, H. (2009). Psychological functioning, media pressure and body dissatisfaction among college women. *Revue Européenne de Psychologie Appliquée/European Review of Applied Psychology*, 60(2), 89-95.**

The aim of this study was to explore the moderating effect of a number of psychological variables on the relationship between media pressure and body dissatisfaction. A total of 200 young women completed questionnaires assessing body dissatisfaction, perceived media pressure, self-esteem, depression, anxiety, and social phobia. Media pressure, anxiety and self-esteem revealed direct effects in the prediction of body dissatisfaction. However, when the interaction terms were examined, only the interaction between social phobia and media pressure was a significant predictor of body dissatisfaction. The findings of the study reveal the importance of psychological functioning regarding vulnerability to the effects of media pressure.

**Schooler, D., Ward, L. M., Merriwether, A., & Caruthers, A. (2004). Who's that girl?: Television's role in the body image development of young White and Black women. *Psychology of Women Quarterly*, 28, 38-47**

Although findings indicate a connection between frequent media use and greater body dissatisfaction, little attention has focused on the role of race. Accordingly, this study investigates the relation between television viewing and body image among 87 Black and 584 White women. Participants reported monthly viewing amounts of mainstream and Black-oriented television programs as well as body attitudes as measured by the Eating Disorders Inventory, the Body Esteem Scale, and the Body Shape Questionnaire. Results suggest different patterns predicting body image for White and Black women. Among White women, viewing mainstream television predicted poorer body image, while viewing Black-oriented media was unrelated to body image. Among Black women, viewing Black-oriented television predicted

healthier body image, while viewing mainstream television was unrelated to body image. Ethnic identity also predicted healthier body image among Black women, and appeared to moderate, to some extent, the contributions of viewing Black-oriented

**Stormer, S. M., & Thompson, J. K. (1996). Explanations of body image disturbance: A test of maturational status, negative verbal commentary, social comparison, and sociocultural hypotheses. *International Journal of Eating Disorders, 19*, 193-202.**

A number of hypotheses have been offered to explain the development and/or maintenance of body image disturbance. In this study, four factors which have been hypothesized to lead to body image problems were tested: maturational status (early physical development), negative verbal commentary (a history of being teased regarding physical appearance), behavioral social comparison, and awareness/internalization of sociocultural pressures. Methods: One hundred sixty-two college females completed measures designed to index these four influences. Predictors were regressed onto multiple measures of body image and two indices of eating disturbance. Results: Even with self-esteem and level of obesity removed as influences, social comparison and societal factors were significant predictors of body dissatisfaction and eating disturbance. Negative verbal commentary also explained a small part of the variance, however, maturational status did not contribute uniquely in any analysis. Discussion: The findings offer further support for emerging theories of body image and eating disturbance.

**Swami, V., Frederick, D. A., Aavik, T., Alcalay, L., Allik, J. r., Anderson, D., et al. (2010). The attractive female body weight and female body dissatisfaction in 26 countries across 10 world regions: Results of the international body project I. *Personality and Social Psychology Bulletin, 36*(3), 309-325.**

This study reports results from the first International Body Project (IBP-I), which surveyed 7,434 individuals in 10 major world regions about body weight ideals and body dissatisfaction. Participants completed the female Contour Drawing Figure Rating Scale (CDFRS) and self-reported their exposure to Western and local media. Results indicated there were significant cross-regional differences in the ideal female figure and body dissatisfaction, but effect sizes were small across high-socioeconomic- status (SES) sites. Within cultures, heavier bodies were preferred in low-SES sites compared to high-SES sites in Malaysia and South Africa ( $d_s = 1.94-2.49$ ) but not in Austria. Participant age, body mass index (BMI), and Western media exposure predicted body weight ideals. BMI and Western media exposure predicted body dissatisfaction among women. Our results show that body dissatisfaction and desire for thinness is commonplace in high-SES settings across world regions, highlighting the need for international attention to this problem.

**Thomsen, S. R. (2002). Health and beauty magazine reading and body shape concerns among a group of college women. *Journalism and Mass Communication Quarterly, 79*, 988-1007**

Research indicates that exposure to thin ideal images in women's magazines is associated with heightened concerns for body shape and size in a number of young women, although the media's role in the psychopathology of body image disturbance is generally believed to be mediated by personality and sociocultural factors. Here, data from a survey of 340 college-age women (ages 18-25) were used to test a structural equation model that examined three potential factors—hope, beliefs about men's expectations for female thinness, and expected weight gain or loss in five years—that might mediate the relationship between reading women's magazines and body shape and size concerns. The study found health and fitness magazine reading was linked directly to body shape concerns as well as indirectly through beliefs about men's thinness expectations and to a lesser degree through expected future weight

gain or loss. Beauty and fashion magazine reading, however, was linked to body shape concerns only indirectly via beliefs about men's thinness expectations. Hope was not influenced directly by reading either type of magazine, nor did it mediate the relationship between reading and body shape concerns.

**Thomsen, S. R., Weber, M. M., & Brown, L. B. (2002). The relationship between reading beauty and fashion magazines and the use of pathogenic dieting methods among adolescent females. *Adolescence*, 37, 1–18**

This study examined the relationship between reading women's beauty and fashion magazines and the use of pathogenic dieting methods (laxatives, appetite suppressants/diet pills, skipping two meals a day, intentional vomiting, and restricting calories to 1,200 or less each day) among 502 high school females. Weak to moderate positive associations were found between reading frequency and each of these unhealthy practices except the use of laxatives. When controlling for anxiety about weight and frequency of regular exercise, however, the original bivariate relations between reading frequency and skipping two meals a day, and reading and intentional vomiting, disappeared. Replication and weak specification effects were found when examining the relationships between reading and taking appetite suppressant/weight control pills, and reading and restricting calories, under the control conditions. These findings suggest that two of the most common adolescent dieting methods—restricting calories and taking diet pills—appear to be influenced by the reading of women's beauty and fashion magazines.

**Tiggemann, M. (2003). Media exposure, body dissatisfaction and disordered eating: Television and magazines are not the same! *European Eating Disorders Review*, 11, 418–430**

*Objective:*

This study aimed to investigate the relationship between media exposure and body dissatisfaction and disordered eating in a more finely grained way than in previous studies.

*Method:*

A sample of 104 female undergraduate students completed measures of both magazine and television exposure, as well as measures of body dissatisfaction, disordered eating, awareness and internalization of societal ideals.

*Results:*

While both media exposure variables were correlated with body dissatisfaction, the pattern of correlations was very different with the other variables. In particular, the amount of magazine reading, but not television watching, was positively correlated with internalization of thin ideals. On the other hand, time spent watching television was negatively correlated with awareness of sociocultural ideals and self-esteem.

*Discussion:*

It was concluded that the processes through which television and magazines impact on body dissatisfaction are different. The relationship between magazine exposure and body dissatisfaction is mediated by internalization of thin ideals, which is not the case for television exposure.

**Wood, N. A. R. and Petrie, T. A. (2010) Body Dissatisfaction, Ethnic Identity, and Disordered Eating Among African American Women. *Journal of Counselling Psychology*, 57, (2) 141-153.**

Initial research suggested that only European American women developed eating disorders (Garner, 1993), yet recent studies have shown that African American women do experience them (e.g., Lester & Petrie, 19986; Mulholland & Mintz, 2001) and also may be negatively affected by similar sociocultural variables. In this study, we examined a sociocultural model of eating disorders for African American women

but included the influences of ethnic identity (e.g., Hall, 1995; Helms, 1990). Participants (N = 322) were drawn from 5 different universities. They completed measures representing ethnic identity, societal pressures regarding thinness, internalization of societal beauty ideals, body image concerns, and disordered eating. Structural equation modelling revealed that ethnic identity was inversely, and societal pressures regarding thinness directly, related to internalization of societal beauty ideals. Societal pressures regarding thinness was also related to greater body image concerns. Both internalization of societal beauty ideals and body image concerns were positively associated with disordered eating ( $R^2 = .79$ ). Overall, the final model fit the data well, supporting its generalizability and the importance of ethnic identity in determining risk.

### *Men Respondents*

**Daniel, S. and Bridges, S. K. (2009) The drive for muscularity in men: Media influences and objectification theory. *Body Image, 7, (1)* 32-38.**

Presently, objectification theory has yielded mixed results when utilized to explain body image concerns in men. An online survey assessing internalization of media ideals, self-objectification, body surveillance, body shame, the drive for muscularity, and body mass index (BMI) was completed by 244 predominantly college-aged males. Path analyses were used to investigate relationships among these variables where it was hypothesized that objectification variables would mediate the relationship between internalization of media ideals and the drive for muscularity. Internalization of media ideals was the strongest predictor of the drive for muscularity, followed by BMI, though variables of objectification theory had no impact on the drive for muscularity contrary to hypotheses. The results suggest that objectification theory may not be applicable to men as it is currently measured.

**Duggan, S. J., & McCreary, D. R. (2004). Body image, eating disorders, and the drive for muscularity in gay and heterosexual men: The influence of media images. *Journal of Homosexuality, 47, 45–58.***

This Internet research project examined the relationship between consumption of muscle and fitness magazines and/or various indices of pornography and body satisfaction in gay and heterosexual men. Participants (N = 101) were asked to complete body satisfaction questionnaires that addressed maladaptive eating attitudes, the drive for muscularity, and social physique anxiety. Participants also completed scales measuring self-esteem, depression, and socially desirable responding. Finally, respondents were asked about their consumption of muscle and fitness magazines and pornography. Results indicated that viewing and purchasing of muscle and fitness magazines correlated positively with levels of body dissatisfaction for both gay and heterosexual men. Pornography exposure was positively correlated with social physique anxiety for gay men. The limitations of this study and directions for future research are outlined.

**Giles, D. C. and Close, J. (2008). Exposure to 'lad magazines' and drive for muscularity in dating and non-dating young men. *Personality and Individual Differences, 44, (7)* 1610-1616.**

Existing research argues that the muscular male body ideal, often promoted in the media, is associated with male body dissatisfaction and increasingly problematic attempts to attain unrealistic body shape by young males. The present study sought to examine the influence of "lad magazines", a highly popular media sector over the last decade, and also the role of dating, or relationship, status, on the association between internalization of appearance ideals and drive for muscularity. One hundred and Sixty-one males between the ages of 18 and 36 from a UK university completed

measures of exposure to lad magazines, eating disturbance, sociocultural attitudes towards appearance, and drive for muscularity. Internalization of appearance ideals was found to be a possible mediator of the relationship between lad magazine exposure and both drive for muscularity and eating disturbance. These effects were significantly stronger among non-dating males, suggesting that, especially for single men, preoccupation with attaining the ideal male body may be enhanced by the use of media that promote traditional masculine ideals.

**Hatoum, I. J. & Belle, D. (2004). Mags and abs: Media consumption and bodily concerns in men. *Sex Roles, 51, 397-407.***

Media messages directed toward men increasingly promote the hypermuscular male body, an ideal impossible for most men to achieve. In this study we investigated the association between media consumption and bodily concerns in a sample of 89 college men. Reading male-directed magazines was associated with concerns about muscularity and general fitness, beauty product use, and dietary supplement use to build muscle. Low self-esteem was linked to weight concerns. Men's media exposure was also associated with their standards for women's bodies: the more male-directed magazines a man read and the more movies he saw, the more he valued thinness in women.

**Morrison, T. G., Morrison, M. A., & Hopkins, C. (2003). Striving for bodily perfection? An exploration of the drive for muscularity in Canadian men. *Psychology of Men and Masculinity, 4, 111-120.***

Two studies were conducted to investigate men's drive for muscularity. Study 1 explored the relationship between sociocultural factors and social comparison and participants' scores on the Drive for Muscularity Attitudes Questionnaire. Men's exposure to idealized media images of the male body and self-reported comparisons to universalistic targets correlated positively with the intensity of their drive for muscularity. Study 2 examined men's beliefs about the drive for muscularity using a qualitative methodology. Results indicated that a number of factors, in addition to those investigated by sociocultural and social comparison theories, may contribute to men's desire to become more muscular. These factors include the perceived social and physical benefits of muscularity. The implications of the current research and avenues for future inquiry are outlined.

*Women and Men Respondents*

**Botta, R. A. (2003). For your health? The relationship between magazine reading and adolescents' body image and eating disturbances. *Sex Roles, 48, 389-399.***

Research has indicated female adolescents are more vulnerable to body image disturbance than male adolescents. However, scholars have begun to examine the increased emphasis on muscularity for men. The current supposition is that a drive to be muscular may be as dangerous for adolescent boys as a drive to be thin is for adolescent girls. Sports, health, and fitness magazines may be a meaningful training ground for adolescents to learn the importance of muscularity and the methods to obtain these perfect sports bodies. Magazines also reinforce the rewards that accompany the attainment of "perfect" bodies. Nearly 400 high school and college students from an urban area in the Midwest were surveyed to test the extent to which reading fashion, sports, and health/fitness magazines is related to body image and eating disturbances, including the added dimension of muscularity. Results indicate that magazine reading, social

comparisons, and critical body image processing are important predictors of body image and eating disturbances for adolescent boys and girls.

**Carney, T. and Louw, J. (2006). Eating disordered behaviours and media exposure. *Social Psychiatry and Psychiatric Epidemiology*, 41, (12) 957-966.**

**Background** This study examined this relationship between eating disordered behaviours and exposure to ideal-type media in a sample of South African university students, who could be expected to have reasonably high levels of media exposure. Possible underlying reasons for this complex relationship were also investigated. **Method** It examined the relationship via both quantitative (using a questionnaire that included the EAT-26 and a media composite variable) and qualitative methods (interviews) in the sample. **Results** In the quantitative part, sex and level of media exposure significantly predicted scores on the EAT-26. Women obtained scores that indicated they were more "at risk" for anorexia nervosa than men, especially women with higher levels of media exposure. In the qualitative part of the study grounded theory was used to explore how this relationship was formed. Results indicated that numerous factors, some related to the media, predispose women to disordered eating behaviours. The interviewees were then more likely to use ideal-type media heavily to sustain their disordered eating behaviours. Heavy use of the media led participants to attempt a number of strategies to change their appearance to resemble those in the media, with various degrees of success. **Conclusion** The model developed by the qualitative research indicated that the media are not necessarily always the cause of pathological eating, but that they interact with other factors in the development of symptoms of anorexia nervosa for these women.

**Harrison, K. & Cantor, J. (1997). The relationship between media consumption and eating disorders. *Journal of Communication*, 47(1), 40-67.**

This study examined the relationship between college women's media use and two sets of variables (disordered-eating symptomatology and a set of related variables, including body dissatisfaction and drive for thinness) and assessed the relationship between college men's media use and their endorsement of thinness for themselves and for women. We expected to find consumption of thinness-depicting and thinness-promoting (TDP) media related to disordered eating and thinness endorsement, with the social learning process of modelling accounting for the relationships. For women, media use predicted disordered-eating symptomatology, drive for thinness, body dissatisfaction, and ineffectiveness. For men, media use predicted endorsement of personal thinness and dieting and select attitudes in favour of thinness and dieting for women. Magazine reading was a more consistent predictor than television viewing. Several relationships remained significant when interest in fitness and dieting as media topics was partialled out of the analyses. Exposure to TDP media appears to be associated with a subsequent increase in eating disorder symptomatology. Selective exposure to these media based on initial interest in fitness and dieting as media topics is not a viable alternative explanation for this association.

**Morry, M. M., & Staska, S. L. (2001). Magazine exposure: Internalization, self-objectification, eating attitudes, and body satisfaction in male and female university students. *Canadian Journal of Behavioural Science*, 33, 269-279**

The relationships among magazine exposure, self-objectification, body shape dissatisfaction, and eating disorder symptomatology in men and women were investigated. Women reading beauty magazines and men reading fitness magazines internalized societal ideals (internalization). For women, beauty magazines predicted self-objectification, mediated by internalization. For men, only internalization predicted self-objectification. For men, fitness magazines predicted body shape dissatisfaction, mediated by internalization. For women, only internalization predicted body shape dissatisfaction. Reading magazines also predicted eating problems for

men and women, for women this was mediated by internalization. These findings suggest that magazine reading is related to concerns with physical appearance and eating behaviours. Many of the relationships previously found for women are similar for men.

**Park, L. E. Diraddo, A. M. and Calogero, R. M. (2009). Sociocultural influence and appearance-based rejection sensitivity among college students *Psychology of Women Quarterly*, 33, (1) 108-119.**

The present research examined the influence of parents, peers, and the media in predicting college students' Appearance-based Rejection Sensitivity (Appearance-RS)-the degree to which individuals anxiously expect to be rejected based on their physical appearance. Given that women are socialized to be more appearance-focused than men, women were hypothesized to show greater Appearance-RS in response to sociocultural influences than men. A survey was administered to 220 students at a large public university in the United States. Overall, women showed greater sensitivity to appearance rejection than men. Specifically, perceptions of peer conditional acceptance based on appearance were associated with Appearance-RS among women. In addition, the more women and men internalized media ideals and felt media pressure to look attractive, the more sensitive they were to appearance rejection. No significant effects of parental influence were found. Thus, peer conditional acceptance predicted Appearance-RS among women, and media influence predicted Appearance-RS among women and men.

**Peterson, K. A., Paulson, S. E. and Williams, K. K. (2007). Relations of eating disorder symptomology with perceptions of pressures from mother, peers, and media in adolescent girls and boys. *Sex Roles*, 57, (9-10) 629-639.**

This study examined the relations of adolescents' perceptions of pressures from the media, their mothers, and their peers with the development of eating disorder symptomology. Participants were 333 male and female adolescents in high school grades 10-12 from a suburban area of the Midwestern US. During the school day, students completed Likert-type scales of perceived pressures and eating disorder symptomology. Canonical correlations showed that students who perceived greater pressures across all three environmental contexts also reported more eating disorder symptomology. However, the patterns of relations between the perceived pressures and specific eating disorder symptoms differed by gender. Implications for future research and prevention programs are discussed.

**Rodgers, R. F., Paxton, S. J., & Chabrol, H. (2010). Depression as a moderator of sociocultural influences on eating disorder symptoms in adolescent females and males. *Journal of Youth and Adolescence*, 39(4), 393-402.**

This study aimed to explore the role of depression as a moderator of sociocultural influences on eating disorder symptoms. A sample of 509 adolescents (56% female) completed self-report questionnaires assessing depression, body dissatisfaction, drive for thinness, bulimic symptoms and sociocultural influences on appearance from family, peers and the media. Both girls and boys displaying high levels of depressive symptoms perceived stronger media and peer influences on appearance. Among girls, eating disorder symptoms were directly affected by sociocultural influences, in particular media influences, as well as by depression. However, depression played only a limited role as a moderator of these relationships. Among boys, sociocultural influences and depression revealed fewer direct effects on eating disorder symptoms. However, depression had a greater moderating effect on these relationships. Future research into the role of depression may increase the understanding of gender differences in body dissatisfaction, drive for thinness and bulimic symptoms.

**Van den Berg, P., Paxton, S. J., Keery, H., Wall, M., Guo, J., & Neumark-Sztainer, D. (2007). Body dissatisfaction and body comparison with media images in males and females. *Body Image, 4*(3), 257-268.**

This study examined the role of media body comparison as a mediator of the relationships between psychological factors and sociocultural pressures to be thin and body dissatisfaction in both females and males. Participants were 1,386 females (mean age = 19.37 years) and 1,130 males (mean age = 19.46) from diverse backgrounds who completed a self-report questionnaire. Path analysis was used to test a cross-sectional model in which media body comparison mediated the impact of self-esteem, depressive mood, parent dieting environment, friend dieting, TV exposure, magazine message exposure, weight teasing and body mass index (BMI) on body dissatisfaction. In females, media body comparison partially or fully mediated relationships between self-esteem, depressive mood, friend dieting, magazine message exposure and BMI, and body dissatisfaction. In males, media body comparison was not a significant predictor of body dissatisfaction. This research particularly highlights the need to further examine processes that are involved in the development of body dissatisfaction in males.

**Van den Bulck, J. (2000). Is television bad for your health? Behavior and body image of the adolescent "couch potato." *Journal of Youth and Adolescence, 29*, 273–288**

This article examines the potential health effects of television. A survey of 1035 Flemish 17- and 18-year-olds shows that eating snacks and drinking regularly accompany viewing. Television was also shown to influence sleeping and family meals. Heavy viewers did not, however, appear to be more passive than lighter viewers. Their indulgence in sports did not differ, but content-specific relationships with going out appear to exist. In this group no link between viewing and obesity was found, but viewing was significantly related to various aspects of people's self assessments regarding their weight, their ideal weight and their looks. Particular attention was given to those television programs that portray "idealized bodies." Generally, a distinction was made between men and women because many body-, weight-, and health-related factors may be culture and gender specific.

**Vartanian, L. R., Giant, C. L., & Passino, R. M. (2001). "Ally McBeal vs. Arnold Schwarzenegger": Comparing mass media, interpersonal feedback and gender as predictors of satisfaction with body thinness and muscularity. *Social Behaviour and Personality, 29*, 711–723.**

Susceptibility to appearance-related mass media, interpersonal feedback, and instrumentality were compared as predictors of body satisfaction and shape concerns regarding thinness and muscularity in a sample of 287 undergraduate men and women. Results indicate that both genders experience body dissatisfaction, but along different shape dimensions; susceptibility to appearance-related mass media and negative appearance-related feedback appear to operate in similar ways to affect men's and women's overall body satisfaction.

**Wright, A. and Pritchard M. E. (2009). An examination of the relation of gender, mass media influence, and loneliness to disordered eating among college students. *Eating and Weight Disorders-Studies on Anorexia Bulimia and Obesity, 14*, (2-3) E144-E147.**

Previous research has found that mass media influence and loneliness relate to disordered eating behaviours in women, but little is known about this relation in men. The present study examined the relations among disordered eating patterns, gender, mass media influence, and loneliness in male and female college students. Results of a stepwise regression revealed that disordered eating attitudes and behaviours (as measured by the Eating Attitudes Test-26) were predicted by mass media influence,

gender, and loneliness, respectively. In the present Study both male and female college students appear susceptible to developing disordered eating patterns. Clinicians may wish to address unrealistic comparisons to media and client interpersonal skills when designing treatment plans.

## 4. Longitudinal and prospective studies

These studies examine effects of media exposure over time, and can demonstrate whether earlier media exposure leads to subsequent increases in body dissatisfaction or related behaviours.

### *Women Respondents*

**Becker, A., Burwell, R. A., Gilman, S., Herzog, D., & Hamburg, P. (2002). Eating behaviours and attitudes following prolonged exposure to television among ethnic Fijian adolescent girls. *British Journal of Psychiatry*, 180, 509–514**

*Background* There are no published studies evaluating the impact of introduction of television on disordered eating in media-naïve populations.

*Aims* To assess the impact of novel, prolonged exposure to television on disordered eating attitudes and behaviours among ethnic Fijian adolescent girls.

*Method* A prospective, multi-wave cross-sectional design was used to compare two samples of Fijian schoolgirls before and after prolonged regional television exposure with a modified 26-item eating attitudes test, supplemented with a semi-structured interview to confirm self-reported symptoms. Narrative data from a subset of respondents from the exposed sample were analysed for content relating television exposure to body image concerns.

*Results* Key indicators of disordered eating were significantly more prevalent following exposure. Narrative data revealed subjects' interest in weight loss as a means of modelling themselves after television characters.

*Conclusions* This naturalistic experiment suggests a negative impact of television upon disordered eating attitudes and behaviours in a media-naïve population.

**Homan, K. (2009) Athletic-ideal and thin-ideal internalization as prospective predictors of body dissatisfaction, dieting, and compulsive exercise. *Body Image*, 7, (3) 240-245.**

Although internalization of the thin ideal has been extensively researched and is now regarded as a risk factor for eating disturbance, endorsement of the firm, athletic body ideal has received only minimal attention. This short-term longitudinal study explored whether internalization of two aspects of the current cultural ideal (thinness and athleticism) prospectively predicted three potentially deleterious outcomes: body dissatisfaction, dieting, and compulsive exercise. Undergraduate women (N = 231) completed self-report measures at the beginning of the academic year and again 7 months later (N = 156 at Time 2). Athletic-ideal internalization predicted change in compulsive exercise over the 7-month study period but not body dissatisfaction or dieting; thin-ideal internalization predicted change in all three outcomes. When both internalization measures were tested simultaneously, neither contributed unique variance. Results suggest that athletic-ideal internalization is not as detrimental as thin-ideal internalization.

### *Men respondents*

**Aubrey, J. S., & Taylor, L. D. (2009). The role of lad magazines in priming men's chronic and temporary appearance-related schemata: An investigation of longitudinal and experimental findings. *Human Communication Research*, 35(1), 28-58.**

We present a program of research investigating the effects of lad magazines on male body self-consciousness and appearance anxiety. Study 1, based on panel data from undergraduate men, showed that lad magazine exposure in Year 1 predicted body self-consciousness in Year 2. Study 2 was an experiment that showed that men assigned to view objectified women in lad magazines reported significantly higher levels of appearance anxiety and appearance-related motivations for exercise than men assigned to view male fashion models. We speculated that participants believed that to be romantically successful with these women would require them to conform to an idealized appearance standard. Study 3 replicated the finding that exposure to sexually objectified women primed body self-consciousness, and it further showed that this effect was mediated by romantic confidence.

**Hargreaves, D. A., & Tiggemann, M. (2003a). Longer-term implications of responsiveness to 'thin-ideal' television: Support for a cumulative hypothesis of body image disturbance? *European Eating Disorders Review, 11*, 465–477**

Brief exposure to thin-ideal media images has been shown to have a small but consistent negative impact on women and girls' body dissatisfaction. The present study aimed to examine the consequence of these small changes in body dissatisfaction for the development of body image over time. A sample of 80 adolescents (mean age = 17.2 years) completed measures of body dissatisfaction, drive for thinness, and drive for muscularity. Two years earlier they had viewed either 20 appearance-related television commercials (containing female thin ideals) or 20 non-appearance commercials as part of an experimental study. For girls, initial body dissatisfaction change in response to viewing appearance commercials at time 1 predicted subsequent body dissatisfaction and drive for thinness 2 years later, above and beyond the variance predicted by initial body dissatisfaction. Similar results were observed for boys' drive for thinness but not for body dissatisfaction. Overall, these results are consistent with a cumulative hypothesis of media exposure and body image development.

*Women and Men Respondents*

**Aubrey, J. S. (2006). Effects of sexually objectifying media on self-objectification and body surveillance in undergraduates: Results of a 2-year panel study. *Journal of Communication, 56*, 366–386**

This study used objectification theory (B. L. Fredrickson & T.-A. Roberts, 1997) to predict that the media's insidious practice of objectifying bodies socializes individuals to take an outsider's perspective on the physical self (i.e., self-objectify) and to habitually monitor their appearance (i.e., engage in body surveillance). To test these hypotheses, a 2-year panel study using an undergraduate sample was conducted. Cross-lagged path models showed that exposure to sexually objectifying television measured during Year 1 increased trait self-objectification (trait SO) during Year 2 for both women and men. At the same time, trait SO during Year 1 decreased exposure to sexually objectifying television during Year 2, suggesting that both male and female participants selectively avoided sexually objectifying television based on antecedent trait SO. Moreover, exposure to sexually objectifying television and magazines increased body surveillance for men only. The discussion focuses on the process by which the media create body-focused perceptions.

# Studies on children

*For the purpose of this report, children are defined as participants under the age of 16 as this is the age specified by the CAP guidelines.*

## Experimental studies

### Girl Respondents

**Dittmar, H., Halliwell, E., & Ive, S. (2006). Does Barbie make girls want to be thin? The effect of experimental exposure to images of dolls on the body image of 5-8-year-old girls. *Developmental Psychology*, 42, 283-292.**

The ubiquitous Barbie doll was examined in the present study as a possible cause for young girls' body dissatisfaction. A total of 162 girls, from age 5 to age 8, were exposed to images of either Barbie dolls, Emme dolls (U.S. size 16), or no dolls (baseline control) and then completed assessments of body image. Girls exposed to Barbie reported lower body esteem and greater desire for a thinner body shape than girls in the other exposure conditions. However, this immediate negative impact of Barbie doll was no longer evident in the oldest girls. These findings imply that, even if dolls cease to function as aspirational role models for older girls, early exposure to dolls epitomizing an unrealistically thin body ideal may damage girls' body image, which would contribute to an increased risk of disordered eating and weight cycling.

Materials: Six images were selected for each type of picture book: Three types of picture books were created in order to expose girls to different image stimuli in the three conditions. Each picture book contained six images, laminated and bound, which showed either Barbie dolls, or Emme dolls (U.S. size 16), or neutral pictures without any depictions of bodies. Great care was taken to make the images in the different exposure conditions as equivalent as possible.

**Durkin, S. J., & Paxton, S. J. (2002). Predictors of vulnerability to reduced body image satisfaction and psychological wellbeing in response to exposure to idealized female media images in adolescent girls. *Journal of Psychosomatic Research*, 53, 995–1005.**

Predictors of change in body satisfaction, depressed mood, anxiety and anger, were examined following exposure to idealized female advertising images in Grades 7 and 10 girls. Stable body dissatisfaction, physical appearance comparison tendency, internalization of thin ideal, self-esteem, depression, identity confusion and body mass index (BMI) were assessed. One week later, participants viewed magazine images, before and after which they completed assessments of state body satisfaction, state depression, state anxiety and state anger. Participants were randomly allocated to view either images of idealized females (experimental condition) or fashion accessories (control condition). For both grades, there was a significant decrease in state body satisfaction and a significant increase in state depression attributable to viewing the female images. In Grade 7 girls in the experimental condition, decrease in state body satisfaction was predicted by stable body dissatisfaction and BMI, while significant predictors of decreases in the measures of negative affect included internalization of the thin-ideal and appearance comparison. In Grade 10 girls, reduction in state body satisfaction and increase in state depression was predicted by internalization of the thin-ideal, appearance comparison and stable body dissatisfaction. These findings indicate the importance of individual differences in short-term reaction to viewing idealized media images.

Materials: Advertisements featuring models or products taken from magazines read by teenage girls.

**Durkin, S. J., Paxton, S. J., & Sorbello, M. (2007). An integrative model of the impact of exposure to idealized female images on adolescent girls' body satisfaction. *Journal of Applied Social Psychology*, 37, 1092–1117.**

This research examined a model describing the interrelationships between individual characteristics and the extent of change in body dissatisfaction following exposure to idealized female images. Three samples of middle adolescent girls (2 Australian, n = 118, and n = 63; 1 Italian, n = 88) completed self-report assessments. Several days later, they viewed idealized female images, and body satisfaction was assessed immediately prior to and following exposure. Across all 3 samples, structural equation modeling supported a model in which body comparison tendency mediated the role of psychological functioning and internalization of the thin ideal on changes in body satisfaction following image exposure. Internalization of the thin ideal partially mediated the path between psychological functioning and body comparison tendency.

Materials: Advertisements featuring models or products taken from magazines read by teenage girls

**Martin, M. C., & Kennedy, P. F. (1993). Advertising and social comparison: Consequences for female preadolescents and adolescents. *Psychology and Marketing*, 10, 513–530.**

The authors investigate the impact of advertising beauty images on female preadolescents and adolescents. An experiment using 4th, 8th, and 12th graders demonstrated that exposure to advertising with highly attractive models raises comparison standards for physical attractiveness, but does not affect self-perceptions of physical attractiveness. The findings also suggest that the tendency of female preadolescents and adolescents to compare themselves to models in ads increases with age, and this tendency is greater for those with lower self-perceptions of physical attractiveness and/or self-esteem.

Materials: Advertisements taken from magazines featuring either highly attractive models, moderately attractive models or no models.

**Martin, M.C. & Gentry, J.W. (1997). Stuck in the model trap: The effects of beautiful models in ads on female pre-adolescents and adolescents. *Psychology and Marketing*, 10, 513-530.**

One of advertising's "unintended effects" is the impact highly attractive models may have on female preadolescents and adolescents. Using social comparison theory as a framework the authors propose that young girls compare their physical attractiveness with that of advertising models and, subsequently, their self-perceptions and self-esteem may be affected, depending on the motive for social comparison. They report a study with a mixed-model design in which motive was manipulated. Girls in grades four, six, and eight participated. The results suggest that motive is important, as support was found for all hypotheses. However, the support was not consistent across all grades or for all dependent variables. The authors consider possible reasons for the inconsistency and discuss the implications of the findings for advertisers and educators.

Materials: Advertisements created using models from popular teenage magazines featuring text manipulated to change participants' motives for self-comparison.

*Boy respondents*

**Farquhar, J. C., & Wasyliw, L. (2007). Media images of men: Trends and consequences of body conceptualization. *Psychology of Men & Masculinity*, 8(3), 145-160.**

In the current investigation, the authors examined how men are presented in popular media and the effects of such presentations on male adolescents' self-evaluations. In a content analysis of male models in advertisements of Sports Illustrated, Study 1 showed that media ideals increasingly emphasize aesthetic versus performance attributes of men. In Study 2, male adolescents (N = 107) were randomly assigned to view either images of male ideals emphasizing aesthetic attributes, images of male ideals emphasizing performance attributes, or neutral images. Results showed that viewing media ideals that emphasize aesthetic attributes contributes to negative self-evaluations whereas viewing media ideals that emphasize performance attributes contributes to positive self-evaluations. These findings suggest that body conceptualization, and not simply body type (i.e., muscularity), plays a role in how men feel about themselves and their bodies.

Materials: Adverts featuring male models taken from Sports Illustrated magazine.

### Girl and Boy Respondents

**Hargreaves, D. A., & Tiggemann, M. (2004). Idealized media images and adolescent body image: “comparing” boys and girls. *Body Image*, 1, 351–361**

Sociocultural theories of body image suggest that body dissatisfaction results from unrealistic societal beauty ideals, and one way of transmitting these ideals is through the mass media. The present research aimed to examine the effect of exposure to images of idealized beauty in the media on adolescent girls' and boys' body image. The participants (595 adolescents) viewed television commercials containing either images of the thin ideal for women, images of the muscular ideal for men, or non-appearance television commercials. Body dissatisfaction was measured before and after commercial viewing. It was found that exposure to idealized commercials led to increased body dissatisfaction for girls but not for boys. Idealized commercials led to increased negative mood and appearance comparison for girls and boys, although the effect on appearance comparison was stronger for girls. Further, participants high on appearance investment reported greater appearance comparison after viewing idealized commercials than those less strongly invested in their appearance. The results suggest the immediate impact of the media on body image is both stronger and more normative for girls than for boys, but that some boys may also be affected.

Materials: Television advertisements taken from major channels featuring either women representing the ideal female body, men representing the ideal male body or people who did not represent either.

## **Correlational Studies**

### Girl Respondents

**Anschutz, D. Engels R., Van Leeuwe, J. and van Strien, T. (2009). Watching your weight? The relations between watching soaps and music television and body dissatisfaction and restrained eating in young girls. *Psychology & Health*, 24, (9) 1035-1050**

Although previous research showed that the thin ideal provided by the media affects body image and eating behaviour in young children, less is known about specific media contents that are related to body image and eating behaviour. This study tested the associations between watching soaps and music television and body dissatisfaction and restrained eating directly, and indirectly through thin ideal internalisation. We conducted a survey in class, in which 245 girls (aged 7-9)

completed scales on their television watching behaviour, thin ideal internalisation, body dissatisfaction and restrained eating. Additionally, height and weight were measured. Watching soaps and music television often was associated with higher thin ideal internalisation, which in turn was associated with higher body dissatisfaction and restrained eating. Furthermore, a direct association between watching soaps and music television and restrained eating was found. If watching other types of children's programmes or maternal encouragement to be thin were included in the models, watching soaps and music television remained an important factor, especially with regard to restrained eating. Therefore, our results suggest that if young girls watch soaps and music television often, this is related to higher restrained eating and body dissatisfaction, directly or indirectly, through higher thin ideal internalisation.

**Borenkowsky, D. L. G., Robinson, T. N., & Killen, J. D. (2000). Does the camera add 10 pounds? Media use, perceived importance of appearance, and weight concerns among teenage girls. *Journal of Adolescent Health, 26, 36-41.***

Purpose: To examine the relationship between use of electronic media and perceived importance of appearance and weight concerns among adolescent girls. Methods: Physical measures and self-report surveys were obtained from 837 ninth-grade girls attending public high schools in San Jose, California (mean age = 14.9 ± 0.47 years; 36% Latino, 24% White, 22% Asian, 8% Black, 10% other). Correlational and multiple regression analyses were performed with ethnicity, body mass index (BMI), perceived importance of appearance, weight concerns, and media use (based on self-reported average weekly use of television, videotapes, video and computer games, and music videos). Results: Total media use was not significantly related to perceived importance of appearance or weight concerns. When media use was separated into distinct media genres, only hours of watching music videos was related to perceived importance of appearance and weight concerns ( $r = 0.12$ ,  $p < .001$ , and  $r = .08$ ,  $p < .05$ , respectively). In multivariate analyses, after controlling for BMI and ethnicity, no media use variables were significantly associated with either perceived importance of appearance or weight concerns. Conclusions: Frequent music video use may be a risk factor for increased perceived importance of appearance and increased weight concerns among adolescent girls.

**Clark, L. & Tiggemann, M. (2007). Sociocultural influences ad body image in 9- to 12-year-old girls: The role of appearance schemas. *Journal of Clinical Child and Adolescent Psychology, 36, 76-86.***

This study tested whether an individual's beliefs about the importance of appearance in their life is a mediator of sociocultural influences on body dissatisfaction in young girls. Participants were 265 girls in Grades 4 to 7 (M age = 10.71 years) from 5 private primary schools in metropolitan Adelaide, South Australia. Girls completed questionnaire measures of appearance television and magazine exposure, peer appearance conversations, autonomy, appearance schemas, and body dissatisfaction. Appearance media exposure and peer appearance conversations were negatively related to body esteem, and autonomy positively predicted body esteem. Most important, appearance schemas mediated between all sociocultural variables and body dissatisfaction.

**Clay, D., Vignoles, V. & Dittmar, H. (2005). Body-image and self-esteem among adolescent females: Testing the influence of sociocultural factors. *Journal for Research on Adolescence, 15, 451-477.***

In Western cultures, girls' self-esteem declines substantially during middle adolescence, with changes in body image proposed as a possible explanation. Body image develops in the context of sociocultural factors, such as unrealistic media images of female beauty. In a study of 136 U.K. girls aged 11–16, experimental

exposure to either ultra-thin or average-size magazine models lowered body satisfaction and, consequently, self-esteem. Self esteem was also lower among older than among younger girls. Structural equation modeling showed that this age trend was partially accounted for by a corresponding downward trend in body satisfaction; this, in turn, was fully accounted for by upward age trends in awareness and internalization of sociocultural attitudes toward appearance, and in social comparison with media models. Results support calls for early educational interventions to help girls to deconstruct advertising and media images.

**Dohnt, H. K., & Tiggemann, M. (2006a). Body image concerns in young girls: The role of peers and media prior to adolescence. *Journal of Youth and Adolescence*, 35, 135–145**

Peer and media influences have been identified as important conveyors of socio-cultural ideals in adolescent and preadolescent samples. This study aims to explore peer and media influences in the body image concerns and dieting awareness of younger girls, aged 5–8 years. A sample of 128 girls was recruited from the first 4 years of formal schooling. Individual interviews were conducted to assess the aspects of body image, as well as dieting awareness by means of a brief scenario. A number of sources of peer and media influence were examined. It was found that by 6 years of age, a large number of girls desired a thinner ideal figure. Both peer and media influences emerged as significant predictors of body image and dieting awareness. Specifically, girls' perceptions of their peers' body dissatisfaction predicted their own level of body dissatisfaction and dieting awareness. Watching music television shows and reading appearance-focused magazines predicted dieting awareness. In particular, girls who looked at magazines aimed at adult women had greater dissatisfaction with their appearance. Thus, the present study highlights that girls aged 5–8 years of age are already living in an appearance culture in which both peers and the media influence body image and dieting awareness.

**Dunkley, T. L., Wertheim, E. H., & Paxton, S. J. (2001). Examination of a model of multiple sociocultural influences on adolescent girls' body dissatisfaction and dietary restraint. *Adolescence*, 36, 265–279**

This study examined the perceived role of three types of sociocultural agents (peers, parents, and media) in influencing body dissatisfaction and dietary restraint in adolescent girls. Participants were 577 grade 10 girls from six schools who completed questionnaires in class and had height and weight measured. Two path analyses resulted in a similar pattern. While current body size strongly predicted ideal body size and body dissatisfaction, perceived influence of multiple sociocultural agents regarding thinness also had a direct relationship with body ideal and dissatisfaction. Dietary restraint was predicted directly from body dissatisfaction and sociocultural influences. Peers, parents, and media varied in their perceived influence. The findings support the idea that those girls who show the most body dissatisfaction and dietary restraint live in a subculture supporting a thin ideal and encouraging dieting.

**Field, A.E., Cheung, L., Wolf, A.M., Herzog, D.B., Gortmaker, S.L., & Colditz, G. A. (1999). Exposure to the mass media and weight concerns among girls. *Paediatrics*, 103. [36-40]**

*Objective.* To assess the influence of the media on girls' weight concerns, weight control/loss behaviors, and perceptions of body weight and shape. *Design.* Cross-sectional survey completed in school. The questionnaire assessed body weight, dissatisfaction with body weight and shape, exposure to fashion magazines, the impact of media on feelings about weight and shape, attributes of and preferences for body types, and whether subjects had gone on a diet to lose weight or initiated

exercise because of an article in a magazine. *Setting* Mandatory physical education class in public elementary, junior high, and high schools. *Participants* Subjects included 548 5th- through 12th-grade girls in a working-class suburb in the Northeastern United States. *Outcome Measures* Perceived influence of fashion magazines on body dissatisfaction, idea of the perfect body shape, dieting to lose weight, and initiating an exercise program. *Results.* Pictures in magazines had a strong impact on girls' perceptions of their weight and shape. Of the girls, 69% reported that magazine pictures influence their idea of the perfect body shape, and 47% reported wanting to lose weight because of magazine pictures. There was a positive linear association between the frequency of reading women's magazines and the prevalence of having dieted to lose weight because of a magazine article, initiating an exercise program because of a magazine article, wanting to lose weight because of pictures in magazines, and feeling that pictures in magazines influence their idea of the perfect body shape. In multivariate logistic regression models controlling for weight status (overweight vs not overweight), school level (elementary vs. junior high school, elementary vs high school), and race/ethnic group, girls who were frequent readers of fashion magazines were two to three times more likely than infrequent readers to diet to lose weight because of a magazine article (odds ratio [OR] 5 2.11, 95% confidence interval [CI]: 1.19 –3.75); to exercise to lose weight because of a magazine article (OR 5 3.02, 95% CI: 1.77–5.17); and to feel that magazines influence what they believe is the ideal body shape (OR 5 2.81; 95% CI: 1.72– 4.58). In addition, moderate-frequency readers were more likely than infrequent readers of fashion magazines to report exercising because of a magazine article (OR 5 1.94; 95% CI: 1.14 –3.30) and feeling that magazines influence what they believe is the ideal body shape (OR 5 2.03; 95% CI: 1.30 –3.15). *Discussion.* The majority of the preadolescent and adolescent girls in this school-based study were unhappy with their body weight and shape. This discontentment was strongly related to the frequency of reading fashion magazines. Although previous studies have concluded that the print media promotes an unrealistically thin body ideal, which in turn is at least partially responsible for promoting eating disorders, the present study is the first that we are aware of to assess directly the impact of the print media on the weight and body shape beliefs of young girls. We observed that the frequency of reading fashion magazines was positively associated with the prevalence of having dieted to lose weight, having gone on a diet because of a magazine article, exercising to lose weight or improve body shape, and deciding to exercise because of a magazine article. Given the substantial health risk associated with overweight and the fact that during the past 2 decades the prevalence of overweight has increased sharply among children and adolescents, it is not prudent to suggest that overweight girls should accept their body shape and not be encouraged to lose weight. However, aspiring to look like underweight models may have deleterious psychological consequences. The results suggest that the print media aimed at young girls could serve a public health role by refraining from relying on models who are severely underweight and printing more articles on the benefits of physical activity. Additional research is needed to assess whether articles on the health hazards of severe dieting, bulimic behaviours, and maintaining a very low body weight would be beneficial.

**Lam, T. H., Lee, S. W., Fung, S., Ho, S. Y., Lee, P. W. H., & Stewart, S. M. (2009). Sociocultural influences on body dissatisfaction and dieting in Hong Kong girls. *European Eating Disorders Review, 17*(2), 152-160.**

We investigated the relationship of sociocultural influences (SI) promoting thinness (parental, peer and media pressures for thinness, and individual value for modernity), age and body mass Index (BMI) to body dissatisfaction (BD) and dieting in 294 Hong Kong community adolescent girls. We proposed that BD mediated SI's relationship with dieting. In bivariate analyses, all variables were significantly ( $p = .05$ ) related to

BD (β's from 0.14 to 0.59), and, except for modernity, to dieting (β's from 0.17 to 0.51). In multivariate analyses, peer (β = 0.32,  $p < .001$ ) and media pressures for thinness (β = 0.18,  $p < .01$ ) bypassed BD and were directly associated with dieting. A culture of thinness appears to be associated with weight loss efforts among girls in modernizing cultures independent of BD. Our findings call for public policy to restrict promotion of the impossibly thin ideal, and public education regarding the paradoxical effects of dieting.

**Mooney, E. Farley H. and Strugnell, C. (2009). A qualitative investigation into the opinions of adolescent females regarding their body image concerns and dieting practices in the Republic of Ireland (ROI). *Appetite*, 52, (2) 485-491.**

The aim of this Study was to investigate the opinions of female adolescents living in the ROI on issues relating to body image and dietary practice. A qualitative study was selected to enable the issues to be explored in depth. Sixteen focus groups were executed with adolescent females ( $n = 124$ ) aged 15-16 years. Data collection took place during class time in both rural and urban schools in the ROI. Data were analysed using a qualitative thematic methodology, namely framework analysis. High levels of body dissatisfaction existed and dieting was found to be prevalent. The influence of media celebrities was significant. The girls not only aspired to be like them in terms of physique but also followed their alleged dieting regimes in detail. Peers also influenced body dissatisfaction and dieting practices. Consequently, eating habits were altered to accommodate this quest for thinness with a tendency to skip main meals as part of the dieting practice while maintaining an unhealthy snacking pattern. The results are of concern as the adolescent females were utilising unhealthy methods of weight control Such as skipping meals and fasting in their quest to obtain a thin physique. A slim body image was deemed important for peer acceptance; hence 'crash' dieting was in existence. This mindset and the resultant dietary practices may have negative health consequences during both adolescence and later life. School interventions targeting adolescent females and focusing on healthy eating and body image are therefore urgently required. A socio-cultural model is used to explain these results.

**Sands, E. R., & Wardle, J. (2003). Internalization of ideal body shapes in 9–12-year-old girls. *International Journal of Eating Disorders*, 33, 193–204**

*Objective*

Body dissatisfaction is reported in girls as young as 9 years old in Western countries. In the current study, internalization of the “thin ideal” was predicted to be a critical influence on the development of body dissatisfaction.

*Method*

Participants ( $n = 356$ ) were weighed and completed measures of body dissatisfaction, awareness and internalization of the thin ideal, and peer and maternal attitudes and behaviour. Exposure to relevant print media was also assessed.

*Results*

Body dissatisfaction was associated with a higher body mass index, although it was not restricted to overweight girls. Internalization mediated the relationship between awareness of the sociocultural standard of appearance and body dissatisfaction. Media exposure and peer and maternal weight-related attitudes and behaviour were, in turn, related to awareness, supporting the hypothesized sociocultural processes.

*Discussion*

Internalization operates as a central component in the development of body dissatisfaction, occurring at a young age in some girls. Internalization may be a suitable target for preventive strategies.

**Schooler, D. (2008). Real women have curves - A longitudinal investigation of TV and the body image development of Latina adolescents. *Journal of Adolescent Research, 23, (2) 132-153.***

Contextualizing Latina girls' body image development requires an appreciation of mainstream body ideals, Latino/a cultural values, and the process by which Latina girls traverse the borders between them. The current study examines how media use and acculturation act across adolescence to shape the development of body image among Latina girls. Eighty-one Latina girls (ages 11 to 17) reported on their body satisfaction, acculturation, and use of mainstream, Black-oriented, and Spanish-language television. Fifty-two of these girls participated in a longitudinal follow-up 2 years later. Frequent viewing of mainstream television was associated with decreases in body image across adolescence. Frequent viewing of Black-oriented television was associated with greater body satisfaction, specifically among more acculturated girls. Illustrative quotes from a subset of participants are included.

### Boy Respondents

**Ricciardelli, L.A., McCabe, M.P., & Banfield, S. (2000). Body image and body change methods in adolescent boys: Role of parents, friends and the media. *Journal of Psychosomatic Research, 48, 189-197.***

OBJECTIVE: This study examines sociocultural influences affecting both body image and body change methods in adolescent boys. METHODS: Twenty boys in grade 7 (aged 12-13) and twenty boys in grade 9 (aged 14-15) were individually interviewed. The influence of parents, siblings, friends and the media on both body image and body change methods was evaluated.

RESULTS: For approximately a third of the boys, parents, siblings, friends and the media were perceived to have at least some influence over boys' feelings about their bodies and body change methods. In particular, feedback from mothers and female friends were viewed as having a positive impact on boys' body image whereas feedback from fathers and male friends was viewed as more important in influencing body change methods. The media was also viewed as contributing to boys' body satisfaction but it was seen to encourage greater exercise to alter body size and shape.

CONCLUSION: The differences and similarities between the sociocultural messages received by males and females are discussed. The implication of these findings in fostering better health among adolescent males are explored.

### Girl and Boy Respondents

**Babio, N., Arijia, V., Sancho, C., & Canals, J. (2008). Factors associated with body dissatisfaction in non-clinical adolescents at risk of eating disorders. *Journal of Public Health, 16(2), 107-115.***

Aim: To examine factors (individual, familiar and sociocultural) associated with body dissatisfaction (BD) by gender in non-clinical adolescents at risk of eating disorders (rED) and in a control group (CG). Subjects and methods: A total of 2,967 adolescent students was screened using the Eating Attitudes Test-40 and the Youth's Inventory-4. Of these, 217 students (161 girls and 56 boys) identified as being at rED were chosen for the study, and 208 students (168 girls and 40 boys) were chosen as the CG. The subjects were given the Body Areas Satisfaction Test, the Youth's Inventory-4, a questionnaire to evaluate social influences on the "model of thinness" (SIMT), the Family Environment Scale, and their body mass index (BMI) was determined. Results: BD frequency in at-risk girls (44.6%) was significantly higher than in boys (27.3%). Girls at rED were most dissatisfied with their weight. BMIs were significantly higher and energy intake was significantly lower in unsatisfied girls than in satisfied girls at rED. In girls at rED, multiple linear regression analyses showed that SI-MT factors and dysthymia were associated with BD. In the CG, higher BMI

were associated with BD. These relationships were not found in adolescent boys. Conclusion: Within the at-risk group, adolescents with BD had higher BMIs, consumed fewer calories, were more influenced by socio-cultural factors and had more emotional issues than those who were satisfied. We suggest that although high BMIs are associated with BD, the interaction with other social and psychopathological characteristics increases the risk of the development of eating disorders.

**Cusumano, D.L. & Thompson, J.K. (1999). Media influence and body image in 8- to 11-year-old boys and girls: A preliminary report of the Multidimensional Media Influence Scale. *International Journal of Eating Disorders*, 29, 37-44.**

Abstract: Objective: To develop a scale for the assessment of multiple components of a media-based influence on body image. Method: Seventy-five boys and 107 girls, ranging in age from 8 to 11, completed a measure designed to assess five facets of a media influence previously conceptualized by researchers. Results: Three distinct scales emerged, which appeared to focus on concepts defined as internalization, awareness, and pressure. Correlations between subscales of the Multidimensional Media Influence Scale (MMIS) and the Eating Disorder Inventory-Body Dissatisfaction subscale were significant for both boys and girls. Girls had higher levels on all three subscales and regression analyses indicated that the MMIS scores predicted 30% of the variance associated with body dissatisfaction for girls, but an R<sup>2</sup> of only .10 emerged for boys. Internalization levels predicted significant variance beyond that explained by awareness and pressures, but only for the female sample. Discussion: The findings are discussed with regard to the usefulness of the MMIS for future research and the role of internalization as a risk factor for the development of body image disturbances and eating disorders.

**Harrison, K. (2000). The body electric: Thin-ideal media and eating disorders in adolescents. *Journal of Communication*, 50, 119-143**

The aim of this study was to replicate survey research demonstrating a correlation between adults' thin-ideal media exposure and eating disorders (Harrison & Cantor, 1997) with a sample of 366 adolescents. Measures included interest in body-improvement media content, exposure to thin-ideal television and magazines, exposure to fat-character television, exposure to sports magazines, and eating-disorder symptomatology. Exposure to fat-character television, thin-ideal magazines, and sports magazines predicted eating-disorder symptomatology for females, especially older females. Exposure to fat-character television also predicted body dissatisfaction for younger males. Relationships remained significant when selective exposure based on interest in body-management content was controlled. Discussion centres on the importance of age and sex in moderating the effects of exposure to thin-ideal media on eating disorders.

**Harrison, K. (2001). Ourselves, our bodies: Thin-ideal media, self-discrepancies, and eating disorder symptomatology in adolescents. *Journal of Social and Clinical Psychology*, 20, 289-323.**

Research has shown that exposure to thin-ideal media is related to eating disorder symptomatology, yet little is known about the processes underlying this relationship. Following self-discrepancy theory, it was predicted that body-specific self-discrepancies would mediate the relationship between thin-ideal media exposure and disordered eating. A sample of 366 male and female adolescents participated in two studies. The findings of the first study support the mediation prediction for thin-ideal television and ideal discrepancies. The findings of the second study demonstrate that exposure to a thin-rewarded portrayal activated ideal discrepancies, whereas exposure to a fat-punished portrayal activated ought discrepancies. Activation of both types of discrepancies is associated with an increase in negative affect whose

chronic presence is predictive of disordered eating. Discussion focuses on the utility of self-discrepancy theory in synthesizing the growing collection of studies demonstrating individual differences in sensitivity to the adverse effects of exposure to thin-ideal media. "Abnormally high levels of self-consciousness may lay the groundwork for eating disorders" (Ewell, Smith, Karmel, & Hart, 1996, p. 122). "For those . . . who do bring such a predisposition (schema) to their use of media, exposure to slender models and weight-loss messages is very likely to exacerbate their conflicts and problems. At present, the nature of that schema remains a tantalizing mystery" (Levine & Smolak, 1996, p. 253).

**Jones, D. C. (2001). Social comparison and body image: Attractiveness comparisons**

**to models and peers among adolescent girls and boys. *Sex Roles, 45, 645–664.*** Relations among body image satisfaction and social comparisons to either same-sex peers or media models were examined in 2 studies of adolescent boys and girls. In the first study, 9th and 10th graders described their conceptions of attractiveness for same- and opposite-sex adolescents. These attractiveness attributes were then used in Study 2 in which 7th- and 10th-grade boys and girls reported on social comparisons to models/celebrities and same-sex peers. Body dissatisfaction was also assessed. The results confirmed that both same-sex peers and models/celebrities were the targets of social comparisons for physical attributes, but comparisons on personal and social attributes were more likely directed toward same-sex peers. For boys and girls, weight comparisons to both peer and model targets were primary correlates of body dissatisfaction. In addition, shape comparisons reported by the girls and facial comparisons endorsed by the boys also related to body dissatisfaction. Gender differences in social comparison indicated that girls reported more social comparisons across targets and attributes. Results are discussed in terms of the role of social comparison and peer context for body image during adolescence.

**Jones, D. C., Vigfusdottir, T. H., & Lee, Y. (2004). Body image and the appearance**

**culture among adolescent girls and boys: An examination of friend conversations, peer criticism, appearance magazines, and the internalization of appearance ideals. *Journal of Adolescent Research, 19, 323–339.***

This research evaluates the contributions of three dimensions of appearance culture (appearance magazine exposure, appearance conversations with friends, and peer appearance criticism) and body mass index (BMI) to internalization of appearance ideals and body image dissatisfaction. Four hundred thirty-three girls and 347 boys in Grades 7 through 10 responded to several measures on a self-report questionnaire. The results of path analyses indicated that Internalization mediated the relationship between Appearance Conversations With Friends and Body Dissatisfaction for both boys and girls. In addition, internalization, Peer Appearance Criticism, and BMI made direct contributions to Body Dissatisfaction for boys and girls, although the strength of the relationships varied by gender. The proposed mediated relation between Appearance Magazine Exposure and Body Dissatisfaction was confirmed only for the girls. The findings provide needed information about the contributions of the peer appearance culture to internalization and body image disturbances for adolescent boys and girls.

**Knauss, C., Paxton, S. J., & Alsaker, F. o. D. (2008). Body dissatisfaction in adolescent boys and girls: Objectified body consciousness, internalization of the media body ideal and perceived pressure from media. *Sex Roles, 59(9-10), 633-643.***

The aim of the present study was to examine a theoretical model describing the relationships between body shame and body surveillance (components of objectified body consciousness), internalization of the media body ideal, perceived pressure from media, body mass index and body dissatisfaction in Swiss adolescent boys and girls. A sample of 819 boys and 791 girls aged 14-16 years completed self-report measures of the mentioned concepts. As expected, girls had higher body shame and body surveillance than boys. Structural equation modelling supported the proposed model in both boys and girls. The findings suggest processes that may contribute to body dissatisfaction.

**McCabe, M.P., Ricciardelli, L.A., & Finemore, J. (2000). The role of puberty, media, and popularity with peers on strategies to increase muscle tone among adolescent boys and girls. *Journal of Psychosomatic Research*, 52, 145-153.**

Objective: The present study was concerned with the impact of pubertal development, relationships with peers and perceived pressure from the media on body dissatisfaction and body change behaviours among adolescent boys and girls. In particular, the study investigated the underresearched area of strategies to increase weight and muscle. The exploration of body change strategies among adolescent boys has been a neglected area of research. Methods: Respondents were 1185 adolescents (527 males, 598 females) who were enrolled in Grades 7 and 9. Participants completed measures of pubertal development, media and peer influence, body dissatisfaction and strategies to lose weight, increase weight and to increase muscle. Results: The findings demonstrated that girls were more likely than boys to adopt strategies to lose weight, whereas boys were more likely to adopt strategies to increase muscle tone (but not weight). For boys in both Years 7 and 9, the main predictors of body change strategies were puberty and, to a lesser extent, perceived popularity with peers. The major influences for Years 7 and 9 girls were puberty and the media, but these mainly focused on weight loss. For Year 9 girls, perceived popularity with opposite-sex peers also predicted body dissatisfaction and strategies to increase muscle tone. Conclusion: The implications of these findings for understanding factors related to a range of body change strategies for adolescent boys and girls are discussed.

**McCabe, M.P. & Ricciardelli, L.A. (2001). Parent, peer, and media influences on body image and strategies to both increase and decrease body size among adolescent boys and girls. *Adolescence*, 36, 225-240.**

This study investigated the nature of body image and body change strategies, as well as the sociocultural influences on these variables, among a group of 1,266 adolescents (622 males, 644 females). In particular, it investigated weight gain and increased muscle, as well as weight loss. It was found that females were less satisfied with their bodies and were more likely to adopt strategies to lose weight, whereas males were more likely to adopt strategies to increase weight and muscle tone. Respondents with higher body mass index (BMI) evidenced greater body dissatisfaction and more weight loss strategies, but there were no differences between BMI groups in weight gain or strategies to increase muscles. Weight gain and strategies to increase muscles were more likely to be undertaken by older adolescents, but there were no grade level differences in weight loss. Media influences to alter weight, as well as feedback from mother, father, and both male and female peers, were greater for females. There were few grade level or BMI differences in regard to any of the sociocultural influences. The importance of these findings in terms of providing a better understanding of factors which may lead to a disturbed body image and body change disorders, particularly among adolescent boys, is discussed.

**McCabe, M. P., & Ricciardelli, L. A. (2003). Sociocultural influences on body image and body changes among adolescent boys and girls. *Journal of Social Psychology, 143*, 5–26.**

In 2 studies, the authors evaluated the role of parents, peers, and the media in body image and body-change strategies among adolescent boys and girls. The respondents for Study 1 (423 boys and 377 girls) completed the Body Image and Body Change Inventory (L. A. Ricciardelli & M. P. McCabe, 2002) and the Perceived Sociocultural Influences on Body Image and Body Change Questionnaire (M. P. McCabe & L. A. Ricciardelli, 2001b). Body mass index and age were also included in the analyses. Regression analyses demonstrated that sociocultural influences and feedback from the participant's best male friend were important predictors for all body-change strategies among boys. For girls, sociocultural influences and feedback from the participant's best female friend and mother were important predictors for body-change strategies. The most consistent predictor of weight loss, weight gain, and strategies to increase muscles was body image importance. In Study 2, the authors examined the influence of the same sociocultural variables, as well as negative affect and puberty on body image and body-change strategies among a second group of 199 boys and 267 girls. The results demonstrated that a broad range of sociocultural influences predicted body-change strategies for boys and girls, with negative affect also having a unique influence for boys but not for girls. Puberty played a minor role, once other sociocultural variables were entered into the regression equation. The implications of these findings are discussed.

**McNicholas, F., Lydon, A., Lennon, R., & Dooley, B. (2009). Eating concerns and media influences in an Irish adolescent context. *European Eating Disorders Review, 17*(3), 208-213.**

Objective: EPICA is the first large-scale Irish study of a school-going population examining the impact of media influences on eating attitudes. Method: Students were screened using the EAT-26, EDI-III and a study-specific questionnaire. A sub-sample of parents' views was included. Results: Three thousand and thirty-one students (mean age 14.74) and 56 parents enrolled. The majority (71.4%) of adolescents felt adversely affected by media portrayal of body weight and shape, with more than a quarter (25.6%) believing it to be 'far too thin'. A significant correlation between media impact and high EAT scores ( $X^2 = 450.78$ ,  $df = 2$ ,  $p < 0.05$ ) and EDI-III scores ( $X^2 = 387.51$ ,  $df = 4$ ,  $p < 0.05$ ) was demonstrated. Parents also view media portrayal as too thin (94.7%), less than half are adversely affected by it (49.2%) but the majority (71.9%) believe their children to be. Conclusion: Media portrayal of body weight and shape is correlated with eating psychopathology and may affect adolescents more than adults. School psycho-educational programmes and media policies are urgently needed to minimise any detrimental effect.

**Mellor, D., M. McCabe, et al. (2008). "Body dissatisfaction and body change behaviours in Chile: The role of sociocultural factors." *Body Image, 5*, (2): 205-215.**

With interest in body image and body change behaviours growing around the world, there has been surprisingly little research conducted in Latin America on these issues. In order to gain some understanding of them in this context, this study investigated body image and body change behaviours, and the sociocultural factors that may influence them, among 337 Chilean adolescents aged 12– 18 years. Participants completed a questionnaire that assessed BMI, body dissatisfaction, strategies to lose weight and strategies to increase muscle bulk. In addition, perceived pressure from family, peers, and the media to change body shape was evaluated. Results were partially consistent with those reported in Western nations. Girls were found to report greater body dissatisfaction than boys, but no difference was found between males and females in perceived pressure from adults in the

family or from older siblings/ cousins to lose weight. However, girls experienced higher levels of perceived pressure to lose weight from the media than boys, and boys reported greater perceived pressure from peers to lose weight than girls, and more pressure than girls from all sources to increase muscle bulk. These findings are discussed in relation to research conducted in other contexts, and it is concluded that findings from other locations may not be applied universally.

**Mellor, D., M. McCabe, et al. (2009). "Sociocultural influences on body dissatisfaction and body change behaviours among Malaysian adolescents." *Body Image, 6, (2): 121-128***

Little research on body dissatisfaction and body change behaviours, and the sociocultural influences on them, has been undertaken in non-Western contexts. The current study investigated these variables and the relationships between them among a sample of 529 Malaysian high school students (103 Malays, 344 Chinese and 82 Indians), who completed a set of measures in classroom settings. Chinese girls were more dissatisfied with their bodies than Chinese boys, but no gender difference was found for Malay and Indian participants. Girls were more likely to engage in behaviours to lose weight, and boys were more likely to engage in behaviours to increase muscle. The influence of sociocultural factors on body dissatisfaction and body change behaviours was limited and varied across both sex and ethnicity. Findings are discussed in relation to Western research, and it is concluded that cultural nuances need to be considered when investigating these phenomena.

**Muris, P., Meesters, C., van de Blom, W., & Mayer, B. (2003). Biological, psychological, and sociocultural correlates of body change strategies and eating problems in adolescent boys and girls. *Eating Behaviours, 6, 11–22.***

The present study examines correlates of body change strategies and eating problems in youths. A large sample of adolescents aged 12 to 16 years (N = 307) was asked to complete a set of questionnaires, which measured biological (age, pubertal status, and body mass index [BMI]), psychological (self-esteem, body dissatisfaction, body importance, and body comparison), and sociocultural variables (influence of media, parents, and peers), as well as body change strategies and disturbed eating attitudes and behaviours. Results showed that boys generally try to become more muscular, whereas girls attempt to lose weight. Further, correlational and regression analyses demonstrated that biological, psychological, and sociocultural influences made unique and significant contributions to various body image and body change/eating problems variables. Finally, hierarchical regression analyses yielded theoretically meaningful models for the main body change strategies in boys and girls. In these models, BMI, self-esteem, and sociocultural influences turned out to be significant predictor variables, while body image-related factors, and in particular body comparison (i.e., the tendency to compare one's body with that of others), partially or fully mediated the influence of some predictor variables.

**Ricciardelli, L. A., & McCabe, M. P. (2001). Self-esteem and negative affect as moderators of sociocultural influences on body dissatisfaction, strategies to decrease weight, and strategies to increase muscles among adolescent boys and girls. *Sex Roles, 44, 189–207.***

The study was conducted to examine the impact of sociocultural influences and the moderating role of self-esteem and negative affect on body dissatisfaction and body change strategies for both adolescent boys and girls. Surveys designed to assess body dissatisfaction, body change strategies to decrease weight and increase muscles, perceived sociocultural pressures to lose weight and increase muscles, self-esteem and negative affect were administered to 587 boys and 598 girls aged

between 11 and 15 years. The majority of respondents were from Anglo-Australian backgrounds (83%) with the remainder being from Asian and European non-English-speaking backgrounds. The sociocultural influences were found to significantly predict body dissatisfaction and body change strategies for both boys and girls. However, in the case of boys, self-esteem was found to moderate the impact of the sociocultural influences in predicting body change strategies. It was primarily the boys with low self-esteem who were more affected by the sociocultural pressures whereas the girls were affected independently of their self-esteem. Negative affect was also found to play a moderating role on some of the sociocultural influences in predicting strategies to increase muscles. Both boys and girls with higher levels of negative affect were more likely to be affected by sociocultural messages directed at increasing muscles. The results from the present study demonstrate that as well as examining the direct influence of sociocultural pressures, it is also important to examine how these may be moderated by self-esteem and negative affect.

**Tiggemann, M. (2005). Television and adolescent body image: The role of program content and viewing motivation. *Journal of Social and Clinical Psychology, 24*, 361–381**

The aim of the study was to investigate the relationship between several aspects of television viewing, in particular total exposure, selective viewing of specific genres, and motives for viewing, with body attitudes among adolescents. Participants were 1,452 secondary school students who completed questionnaire measures of eating disorder attitudes and symptomatology, internalization of appearance ideals, appearance schemas, and uses of television. Participants also provided a detailed account of their television watching in the previous week, from which measures of total exposure and viewing of specific genres were generated. It was found that total television time was not related to any body image variable for either boys or girls. However, the time spent watching soap operas was related to drive for thinness in both genders. This relationship was mediated by internalization and appearance schemas. The time spent watching soap operas and music videos was also related to drive for muscularity in boys. Three major components of television usage were identified: entertainment, social learning, and escape from negative affect. The latter two uses had substantial correlations with negative outcomes for both genders. The similar pattern of correlations observed for boys and girls suggests that similar processes are operating in the two genders. It was concluded that television watching does have an impact on young people's sense of body image but that the critical aspects are the type of material and motivations for watching, not the total amount of television watched

**Xu, X. Y., D. Mellor, et al. "Body dissatisfaction, engagement in body change behaviours and sociocultural influences on body image among Chinese adolescents." *Body Image, 7*, (2): 156-164**

Body dissatisfaction and body image disorders are becoming increasingly prevalent in developing non- Western countries such as China, but there is a lack of research examining the sociocultural factors that in other contexts have been associated with these problems. The current study investigated body dissatisfaction, engagement in body change behaviours, and sociocultural pressures on body image, and the relationships between these variables among 517 adolescent males (N = 219) and females (N = 298) in China. Females reported greater body dissatisfaction than males, and males reported using strategies to increase their muscle bulk more often than females. Males reported pressure from a variety of sociocultural sources to increase their muscles or weight, while females reported pressure from the media to lose weight. For males body dissatisfaction was predicted by pressure from peers to increase their muscle bulk, while for females pressure to lose weight from peers, adult relatives, and the media was likely to increase body dissatisfaction. Pressure

from the media and adult relatives was also predictive of body change behaviors in both males and females. The findings are discussed in relation to previous research in both Western and non-Western contexts.

## Longitudinal and Prospective Studies

### Girl Respondents

**Dohnt, H., & Tiggemann, M. (2006). The contribution of peer and media influences to the development of body satisfaction and self-esteem in young girls: A prospective study. *Developmental Psychology, 42*, 929-936.**

This study aimed to prospectively examine the role of peer and media influences in the development of body satisfaction (incorporating the desire for thinness and satisfaction with appearance) in young girls, as well as the relationship between body satisfaction and self-esteem. A sample of 97 girls 5–8 years of age completed individual interviews at Time 1 and 1 year later at Time 2. Linear panel analyses found that Time 1 perception of peers' desire for thinness was temporally antecedent to girls' desire for thinness, appearance satisfaction, and self-esteem 1 year later. In addition, the watching of appearance focused television programs was temporally antecedent to appearance satisfaction. Finally, girls' desire for thinness was found to temporally precede low self-esteem. Thus, as early as school entry, girls appear to already live in a culture in which peers and the media transmit the thin ideal in a way that negatively influences the development of body image and self-esteem.

**Harrison, K., & Hefner, V. (2006). Media Exposure, Current and Future Body Ideals, and Disordered Eating Among Preadolescent Girls: A Longitudinal Panel Study. *Journal of Youth and Adolescence, 35*(2), 153-163.**

Internalization of the thin body ideal is considered by many to account for the relationship between media exposure and disordered eating among girls and young women, but almost all supporting research has employed adolescent and adult samples. Using longitudinal panel survey data collected from 257 preadolescent girls at 2 points in time 1 year apart, we tested relationships between self-reported television and magazine exposure at wave 1 and current (prepubescent) and future (post-pubescent) body ideals and disordered eating at wave 2. Controlling age, race, perceived body size, and body ideals and disordered eating measured at wave 1, television viewing at wave 1 predicted increased disordered eating and a thinner post-pubescent body ideal at wave 2. In contrast, none of the media variables predicted a thinner prepubescent body ideal at wave 2. These findings suggest that the thin-ideal internalization construct needs refinement to enhance its developmental sensitivity.

**Stice, E., Spangler, D., & Agras, W.S. (2001). Exposure to media-portrayed thin-ideal images adversely affects vulnerable girls: A longitudinal experiment. *Journal of Social and Clinical Psychology, 2*, 270-288.**

Although laboratory experiments indicate that brief exposure to thin models leads to acute body dissatisfaction and negative affect in women, research has not tested whether longer term exposure results in lasting effects. Accordingly, we randomly assigned 219 adolescent girls to a 15-month fashion magazine subscription or a no-subscription condition and followed them over time. Despite evidence that the experimental manipulation successfully increased exposure to the fashion magazine and the ample statistical power, there were no main effects of long-term exposure to thin images on thin-ideal internalization, body dissatisfaction, dieting, negative affect, or bulimic symptoms. However, there was evidence that vulnerable adolescents, characterized by initial elevations in perceived pressure to be thin and body

dissatisfaction and deficits in social support, were adversely affected by exposure to these images. Results suggest that exposure to thin-ideal images has lasting negative effects for vulnerable youth.

**Tiggemann, M. (2006). The role of media exposure in adolescent girls' body dissatisfaction and drive for thinness: Prospective results. *Journal of Social and Clinical Psychology, 25*, 523-541.**

The aim of the study was to investigate prospectively the direction of the relationship between media exposure and body image disturbance. Participants were 214 female high school students (mean age = 14 years) who completed questionnaire measures of media exposure (magazines and television), internalization of appearance ideals, appearance schemas, body dissatisfaction, and drive for thinness at Time 1, and then again one year later at Time 2. It was found that Time 1 reading of appearance magazines and watching of soap operas predicted Time 2 internalization, appearance schemas, and drive for thinness. However, regression analyses controlling for Time 1 body image variables showed that no media exposure variable predicted change in any body image measure. Neither did body image predict change in media exposure. Appearance schemas, however, did predict change in body dissatisfaction. It was concluded that, for this age group, media exposure and body image co-occur, but that neither one is temporally antecedent to the other. Thus the study demonstrated no causal role for media exposure in the body image of adolescent girls.

**Tiggemann, M., & Pickering, A. S. (1996). Role of television in adolescent women's body dissatisfaction and drive for thinness. *International Journal of Eating Disorders, 20*, 199-203.**

Objective: Many authors have implicated the media's promotion of an unrealistically thin ideal for women as a major causal factor in the current high levels of body dissatisfaction and increasing incidence of eating disorders. The present study aimed to investigate the relationship between exposure to one medium, television, and body dissatisfaction and drive for thinness. Method: Questionnaires were administered to 94 adolescent women who reported how much and what television they had watched in the previous week. Body dissatisfaction and drive for thinness were also assessed. Results: Amount of television watched did not correlate with either body dissatisfaction or drive for thinness, but category of program did. Specifically, amount of time spent watching soaps, movies, and (negatively) sport predicted body dissatisfaction, and the watching of music videos predicted drive for thinness. Discussion: The results are consistent with sociocultural explanations for body dissatisfaction and for the emergence of eating disorders in young women.

### *Boy Respondents*

**Harrison, K. and Bond, B. J. (2007). Gaming magazines and the drive for muscularity in preadolescent boys: A longitudinal examination. *Body Image, 4*, (3) 269-277.**

The development of a drive for muscularity among boys has been linked to various cultural influences, one of which is exposure to mass media depicting the muscular male body ideal. We sought to determine whether self-reported exposure to four ideal-body magazine genres (health/fitness, fashion, sports, and gaming) predicted an increased drive for muscularity 1 year later. A sample of 104 Black and 77 White preadolescent boys (mean age 8.77) participated in a 2-wave longitudinal panel study. Controlling Wave 1 grade, perceived thinness/adiposity, and drive for muscularity, exposure to video gaming magazines predicted a significant increase in Wave 2 drive for muscularity, but only for White boys. Discussion calls for the inclusion of video gaming magazine exposure measures in future research on print

media and male body ideals, along with empirical exploration of racial themes in gaming magazines.

### Girl and Boy Respondents

**Field, A. E., Javaras, K. M. Aneja, P. Kitos, N. Camargo, C. A. Taylor, C. B. and Laird, N. M. (2008). Family, peer, and media predictors of becoming eating disordered. *Archives of Paediatrics & Adolescent Medicine*, 162, (6) 574-579.**

Objective: To identify predictors of becoming eating disordered among adolescents. Design: Prospective cohort study. Setting: Self-report questionnaires. Subjects: Girls (n=6916) and boys (n=5618), aged 9 to 15 years at baseline, in the ongoing Growing Up Today Study (GUTS). Main Exposures: Parent, peer, and media influences. Main Outcome Measures: Onset of starting to binge eat or purge (ie, vomiting or using laxatives) at least weekly. Results: During 7 years of follow-up, 4.3% of female subjects and 2.3% of male subjects (hereafter referred to as "females" and "males") started to binge eat and 5.3% of females and 0.8% of males started to purge to control their weight. Few participants started to both binge eat and purge. Rates and risk factors varied by sex and age group (< 14 vs >= 14 years). Females younger than 14 years whose mothers had a history of an eating disorder were nearly 3 times more likely than their peers to start purging at least weekly (odds ratio, 2.8; 95% confidence interval, 1.3-5.9); however, maternal history of an eating disorder was unrelated to risk of starting to binge eat or purge in older adolescent females. Frequent dieting and trying to look like persons in the media were independent predictors of binge eating in females of all ages in males, negative comments about weight by fathers was predictive of starting to binge at least weekly. Conclusions: Risk factors for the development of binge eating and purging differ by sex and by age group in females. Maternal history of an eating disorder is a risk factor only in younger adolescent females.

**Moriarty, C. M. and Harrison K. (2008). Television exposure and disordered eating among children: A longitudinal panel study. *Journal of Communication*, 58, (2): 361-381.**

Although the link between media consumption and eating disorders has been widely studied, relatively little is known about the development of this link in childhood. A longitudinal panel survey of 315 White and Black preadolescent boys and girls revealed that television exposure, after controlling for age, perceived body size, selective exposure to ideal-body television, and baseline disordered eating, significantly predicted disordered eating 1 year later for girls but not for boys. Findings suggest that disordered eating as an outcome of television exposure is an important issue for Black girls as well as White girls. Results also highlight the need for continued investigation into gender differences in the effects of media exposure on eating disturbance in childhood.

## Part B. Research demonstrating positive effects from media exposure

### Studies on women and girls

**Anschutz, D. J. Engels, R. Becker, E. S. and Van Strien, T. (2009). The effects of TV commercials using less thin models on young women's mood, body image and actual food intake. *Body Image*, 6, (4) 270-276.**

This study experimentally tested the effects of exposure to television commercials using less thin models on mood, body focused anxiety and food intake, as compared to the effects of commercials using thin models. In a naturalistic setting, 110 young women were exposed to a neutral movie, interrupted by two commercial breaks. The commercial breaks contained real commercials using either less thin (n = 32) or thin models (n = 39), or neutral commercials (n = 39). During watching television, participants could freely eat snack food. Further, their mood and body focused anxiety was assessed. ANOVAs revealed no effects on body focused anxiety, but women reported a more negative mood and ate less after exposure to commercials using less thin models than after exposure to commercials using thin models. These results imply that using less thin models in commercials explicitly referring to the thin ideal does not make women feel better.

Methods: A short neutral film interrupted by advertisements featuring either thin women, average-heavy women or no women.

**Champion, H., & Furnham, A. (1999). The effect of the media on body satisfaction in adolescent girls. *European Eating Disorders Review*, 7, 213–228**

It has been suggested that the media, in consistently Portraying thin stereotypically attractive bodies, exacerbates the phenomenon of body dissatisfaction, and in consequence may be partly responsible for the increase in the prevalence of eating disorders. A recent study by Ogden and Munday (1996) observed that an acute exposure to such images increased the body image dissatisfaction of adult subjects, whilst exposure to images of overweight individuals ameliorated dissatisfaction. The present study attempted to investigate this effect in adolescent girls. The results failed to support the experimental hypothesis, however possible reasons for this are discussed. It is suggested that the media's influence on individuals' self-evaluations may be more complex than Ogden and Munday's results imply, differentially affecting individuals' levels of satisfaction.

Materials: Images taken from magazines of either thin, overweight or average women.

**Jarry, J. L., & Kossert, A. L. (2007). Self-esteem threat combined with exposure to thin media images leads to body image compensatory self-enhancement. *Body Image*, 4, 39–50**

This study examined the effect of a self-esteem threat combined with exposure to thin images on body image (BI) satisfaction and investment. Female participants (N = 94) received a self-esteem threat consisting of false failure feedback or received false success feedback on an intellectual task allegedly highly predictive of academic and professional success. They then viewed media images featuring thin models or products. After viewing thin models, women who had received failure feedback declared themselves more satisfied about their appearance and less invested in it than did women who had received success feedback. These results suggest that exposure to the thin ideal may inspire women experiencing self-esteem threats to use appearance as an alternative source of worth, thus maintaining their global esteem through BI compensatory self-enhancement. Potential long-term implications

of this strategy, such as a paradoxical increase in BI investment and the development of eating pathology, are discussed.

Materials: Advertisements taken from magazines showing featuring either a model or a product alone.

**Joshi, R., Herman, C. P., & Polivy, J. (2004). Self-enhancing effects of exposure to thin body images. *International Journal of Eating Disorders*, 35, 333-341.**

*Objective*

This study examines the effect of thin-body media images on mood, self-esteem, and self-image ratings of restrained and unrestrained eaters. A secondary purpose was to examine whether these effects were influenced by exposure duration.

*Method*

Under the guise of a perception study, participants were exposed to thin-body or control advertisements (e.g., perfume bottles) for either 7 or 150 ms and then completed a questionnaire packet.

*Results*

Restrained eaters reported more favourable self-image and social self-esteem (but not appearance self-esteem) scores after exposure to thin-body images than after exposure to control advertisements. The self-image and social self-esteem scores of unrestrained eaters were unaffected by advertisement type, but their appearance self-esteem scores were lower after exposure to thin-body advertisements. No differences were found for mood ratings and total self-esteem.

*Discussion*

We discuss restraint status as a moderator of the effects of thin-body images on women's body image.

Methods: Advertisements taken from popular women's magazine featuring slim models, with adverts featuring products without models as a control.

**Mills, J.S., Polivy, J., Herman, P., & Tiggemann, M. (2002). Effects of exposure to thin media images: Evidence of self-enhancement among restrained eaters. *Personality and Social Psychology Bulletin*, 29, 1687-1699.**

The effects of viewing media-portrayed idealized body images on eating, self-esteem, body image, and mood among restrained and unrestrained eaters were examined. Study 1 found that restrained eaters (i.e., dieters), but not unrestrained eaters, rated both their ideal and current body sizes as smaller and uninhibited their food intake following exposure to idealized body images. These results suggest that restrained eaters are susceptible to a "thin fantasy" brought about by viewing ideal body images. Study 2 found that strengthening thinness attainability beliefs can further enhance the thin fantasy demonstrated by restrained eaters following exposure to idealized body images. Study 3 examined whether demand characteristics moderate these effects of media-portrayed idealized body images. As predicted, when explicit demand characteristics were present, participants reported feeling worse following exposure to thin models. The complexities of the media's role in the development and maintenance of body dissatisfaction and dieting behaviour are discussed.

Materials: Magazine advertisements featuring slim, heavy or without models.

**Schooler, D., & Ward, L. M. (2006). Average Joes: Men's relationships with media, real bodies, and sexuality. *Psychology of Men & Masculinity*, 7(1), 27-41.**

Although numerous studies have examined women's body attitudes in relation to media and sexuality, fewer studies have explored these relations among men. Accordingly, the authors investigated the contributions of media to men's body attitudes and examined how such attitudes relate to sexual decision making. One hundred eighty-four male undergraduates reported media use, body attitudes, and

sexual behaviours. Regular media use was related to greater acceptance of the shape and performance of one's body but decreased comfort with aspects of one's real body, such as hair and sweat. Comfort with these aspects of one's real body predicted greater sexual assertiveness and risk-reduction behaviours. Furthermore, comfort with similar aspects of female partners' real bodies was related to greater intimacy in sexual relationships.

**Strauss, J., Doyle, A. E., & Kreipe, R. E. (1994). The paradoxical effect of diet commercials on reinhibition of dietary restraint. *Journal of Abnormal Psychology, 103*, 441–444**

Although many studies have explored the mechanism by which dietary restraint becomes uninhibited, few have examined how restraint is restored or “reinhibited.” Using a taste test with preload design, we showed a sad movie clip interrupted by diet-related commercials, neutral commercials, or no commercials to women with high and low restraint scores. We predicted that images of successful dieting would foster reinhibition. Results, however, revealed the opposite: high restrained eaters who viewed the diet-oriented commercials ate more than other subjects. We interpret these data as suggesting that diet-related images act as additional uninhibitors and view our results in light of research linking ego threat to dietary uninhibition (Heatherton, Herman, & Polivy, 1991).

Materials: A 39 minute video of the film ‘Terms of Endearment’ interjected after 20minutes with either 90seconds of frequently aired commercials including desirable body images or 90seconds of neutral commercials with no references to food or direct references to body image.

**Van den Berg, P., & Thompson, J. K. (2007). Self-schema and social comparison explanations of body dissatisfaction: A laboratory investigation. *Body Image, 4*, 29–38**

The current study was an investigation of the self-schema and social comparison theories of body dissatisfaction. The social comparison manipulation consisted of exposure to one of three levels of comparison figure: upward, downward, or no comparison. Two different imagery exercises served to prime either a participants’ appearance self-schema, or a non-appearance schema. Participants completed state measures of body image and mood at pre- and post-test. Results indicated no significant interaction between priming and social comparison and no significant main effect for priming. However, there was a significant effect of social comparison, such that those in the downward comparison condition showed an increase in body satisfaction and positive mood. Results are discussed in the context of self-schema theory and social comparison, and suggestions are given for future research that might further shed light on these theoretical approaches for understanding body dissatisfaction.

Materials: Images of models from various sources rated as either attractive for not attractive.

**Wilcox, K., & Laird, J. D. (2000). The impact of media images of super-slender women on women’s self-esteem: Identification, social comparison, and self-perception. *Journal of Research in Personality, 34*, 278–286**

Some women enjoy examining media depictions of extremely slender models, while others find such depictions produce feelings of inadequacy. The two reactions appear to reflect differences in the impact of bodily information in generating feelings. Forty-one women were randomly assigned to view pictures of slender or normal-weight models and to respond to scales measuring body esteem and self-esteem. The importance of personal, bodily cues in feeling processes was also determined by inducing the women to adopt facial expressions of emotion and assessing whether

their feelings changed to match their expressions. Among women whose emotions were based on personal cues, looking at slender models produced lower self-esteem and satisfaction with their weight as compared to women viewing more robust models, apparently reflecting social-comparison processes. Among women unresponsive to personal cues, looking at slender models increased self-esteem and satisfaction with their weight, apparently due to identification.

*Materials: Advertisements from magazines featuring either thin or average-weight women.*

# Reviews of the Literature on Media Influence, Body Image, and Eating

This section provides a brief selection of the most significant reviews and books on media and body image.

## *Articles in scientific journals*

**Cafri, G., Thompson, J. K., Ricciardelli, L., McCabe, M., Smolak, L., & Yesalis, C. (2005). Pursuit of the muscular ideal: Physical and psychological consequences and putative risk factors. *Clinical Psychology Review, 25*, 215-239.**

Developing a lean muscular figure for the purposes of sports and/or appearance has become a central issue for males. Concern has been raised because the desire to develop such a body build may lead to the adoption of numerous health-threatening behaviors. Consequently, this review presents a comprehensive analysis of the physical and psychological consequences that result from the use of steroids (legal and illegal), ephedrine, and deleterious dieting strategies specific to males. Putative risk factors for these behaviors will be identified, and the clinical disorder associated with the extreme abuse of these behaviors, muscle dysmorphia, will be examined.

**Dittmar, H. (2009). How do 'body perfect' ideals in the media have a negative impact on body image and behaviours? Factors and processes related to self and identity. *Journal of Social and Clinical Psychology, 28*, 1-8.**

Body image has emerged as a core aspect of mental and physical well-being. Informed by socio cultural theory, a rapidly growing body of research addresses the question of whether body perfect ideals in the mass media are a core risk factor for negative body image, particularly in women. This work has moved beyond assessments of whether or not negative exposure effects occur so that significant progress has been made toward identifying diverse factors that make individuals more or less vulnerable to body perfect ideals in the media. This special issue examines and extends this work in various ways. It offers a critical analysis of the evidence base for a causal link between media and body image. It presents new findings which support a qualified and complex picture of media effects or influences, highlighting the importance not only of individual differences, but also psychological processes, related to self and identity. Thus, it aims to contribute toward a more theoretically informed understanding of vulnerability factors through a focus on self, identification with the thin ideal and related processes.

**Levine, M.P., & Murnen, S.K. (2009). "Everybody knows that mass media are/are not [pick one] a cause of eating disorders": A critical review of evidence for a causal link between media, negative body image, and disordered eating in females. *Journal of Social and Clinical Psychology, 28*, 9-42.**

This article reviews research pertaining to mass media as a causal risk factor for negative body image and disordered eating in females. The specific purpose is to clarify the impact of mass media by applying seven criteria that extend those of Kraemer et al. (1997) and Slice (2002). Although media effects clearly meet a majority of the criteria, this analysis indicates that, currently, engagement with mass media is probably best considered a variable risk factor that might well lie later shown to be a causal risk factor. Recommendations are made for further research, with an emphasis on longitudinal investigations, studies of media literacy as a form of

prevention, and clarification of psychosocial processes that moderate and mediate media effects.

**Polivy, J., & Herman, C. P. (2004). Sociocultural idealization of thin female body shapes: An introduction to the special issue on body image and eating disorders. *Journal of Social & Clinical Psychology, 23*, 1-6.**

Sociocultural pressure on women to be thin has been blamed for the development of eating disorders. Despite decades of research, however, it is still not clear why a few women exposed to these pressures develop eating disorders, but most women in the society do not. The media are often blamed for spreading the message that women must be thin, and for making women feel badly about themselves. This view seems overly simplistic, however, ignoring the fact that women voluntarily expose themselves to thin media images, that such exposure can actually be pleasurable, and that most women exposed to this message do not develop eating disorders. The sociocultural model of eating disorders needs further study and refinement, and the studies in this special issue represent steps in that process.

**Ricciardelli, L. A., & McCabe, M. P. (2001). Children's body image concerns and eating disturbance: A review of the literature. *Clinical Psychology Review, 21*, 325-344.**

In recent years a large number of studies have examined body image concerns, and early symptoms of eating disturbance among children. However, to date there has been no synthesis or evaluation of these studies. The purpose of the present article is to review and evaluate the research that has examined body image concerns, and eating attitudes and behaviours among children 6 to 11 years of age. The instruments used to assess body image concerns and eating disturbance in children closely resemble those used with adolescents and adults. Overall, the psychometric data for these instruments are very good and there is sufficient evidence indicating that they can be used reliably and validly. In addition, similar variables to those studied in adolescent and adult samples have been found to be associated with children's body image concerns and early eating disturbance. These include gender, age, body mass index, race, sociocultural pressures, and self-concept. Our understanding of the development of body image concerns and eating disturbance in children is limited, however, by the fact that most of the research in this field has been based on cross-sectional data, and the studies have focused almost exclusively on weight loss cognitions and behaviours.

**Stice, E. (1994). A review of the evidence for a sociocultural model of bulimia nervosa and an exploration of the mechanisms of action. *Clinical Psychology Review, 14*, 633-661.**

Although numerous studies have examined the role of sociocultural pressures in the etiology and maintenance of bulimia nervosa, a comprehensive review that synthesizes the current knowledge is needed. The primary aim of the present paper was to review the available evidence implicating sociocultural factors in the promotion of bulimia. Overall, the research supported the contention that sociocultural pressures play a role in perpetuating bulimia. The secondary aim of the paper was to propose a model that links these nebulous pressures to the actual development of bulimic behaviour. This model first delineates probable carriers of these cultural messages, including the family, peers, and the media. Second, variables thought to mediate the relation between these societal pressures and eating pathology were examined. Internalization of these pressures, body dissatisfaction, restrained eating, and negative affect were considered as potential mediators. Finally, factors that possibly moderate the enumerated mediational pathways were explored. Implications for prevention and future research are discussed.

**Stice, E., Schupak-Neuberg, E., Shaw, H. E., & Stein, R. I. (1994). Relation of media exposure to eating disorder symptomatology: An examination of mediating mechanisms. *Journal of Abnormal Psychology, 103*, 836-840.**

Although investigators have postulated that the thin ideal for women espoused in the media is related to the high rates of eating disorders among females, little research has examined the relation between media exposure and eating pathology. This study assessed the relation of media exposure to eating disorder symptoms and tested whether gender-role endorsement, ideal-body stereotype internalization, and body satisfaction mediated this effect. In data from 238 female undergraduates, structural equation modelling revealed a direct effect of media exposure on eating disorder symptoms. Furthermore, mediational linkages were found for gender-role endorsement, ideal body stereotype internalization, and body satisfaction. The results support the assertion that internalization of sociocultural pressures mediate the adverse effects of the thin ideal

**Thompson, J. K., & Stice, E. (2001). Thin-ideal internalization: Mounting evidence for a new risk factor for body-image disturbance and eating pathology. *Current Directions in Psychological Science, 10*, 181-183.**

Body-image disturbance and eating disorders are a significant physical and mental health problem in Western countries. We describe emerging work on one newly identified variable that appears to be a potent risk factor for the development of these problems internalization of societal standards of attractiveness. Work conducted independently in our labs over the past decade has included scale development, correlational studies, prospective risk-factor studies, randomized experiments, and randomized prevention trials. Findings collectively suggest that internalization is a causal risk factor for body-image and eating disturbances, and that it appears to operate in conjunction with other established risk factors for these outcomes, including dieting and negative affect. Future research is needed to examine the specific familial, peer, and media influences that promote internalization and to replicate and extend our prospective and experimental studies

## **Books**

Cash, T. F. & Pruzinsky, T. (Eds.) (2002). *Body image: A handbook of theory, research, and clinical practice*. New York: Guilford.

Dittmar, H. (2008). *Consumer culture, identity, and well-being: The search for the 'good life' and 'body perfect'*. European Monographs in Social Psychology (Series editor: Rupert Brown). London: Psychology Press.

Grogan, S. (2007). *Body image: Understanding body dissatisfaction in men, women and children, 2<sup>nd</sup> edition*. London: Routledge.

Hofschire, L. J., & Greenberg, B. S. (2001). Media's impact on adolescents' body dissatisfaction. In J. D. Brown & J. R. Steele (Eds.), *Sexual teens, sexual media* (pp. 125–149). Mahwah, NJ: Erlbaum

Kilbourne, J. (1994). Still killing us softly: Advertising and the obsession with thinness. In P. Fallon, M. A. Katzman, & S. C. Wooley (Eds.), *Feminist perspectives on eating disorders* (pp. 395-418). New York: Aronson.

Levine, M. P. & Harrison, K. (2004). The role of mass media in the perpetuation and prevention of negative body image and disordered eating. In J.K. Thompson (Ed.), *Handbook of eating disorders and obesity* (pp. 695-717). New York: John Wiley.

Pope, H. G., Phillips, K. A., & Olivardia, R. (2000). *The Adonis complex: The secret crisis of male body obsession*. New York: Free Press.

Smolak, L., & Levine, M. (2001). Body image in children. In J.K. Thompson & L. Smolak (Eds.), *Body image, eating disorders, and obesity in youth: Assessment, prevention and treatment* (pp. 41-66). Washington, DC: American Psychological Association.

Thompson, J. K. (Ed.) (2004). *Handbook of eating disorders and obesity*. Washington, DC: American Psychological Association Press.

Thompson, J.K. & Cafri, G. (2007). *The muscular ideal: Psychological, social, and medical perspectives*. Washington, DC: American Psychological Association.

Thompson, J.K., Heinberg, L.J., Altabe, M. & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment and treatment of body image disturbance*. Washington DC: American Psychological Association.