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"Warning: This image has been digitally altered": The effect of disclaimer labels added to

fashion magazine shoots on women's body dissatisfaction

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Abstract

The present experiment aimed to investigate the impact of the addition of disclaimer labels to fashion magazine shoots on women's body dissatisfaction. Participants were 320 female undergraduate students who viewed fashion shoots containing a thin and attractive model with no disclaimer label, or a small, large, or very large disclaimer label, or product images. Although thin-ideal fashion shoot images resulted in greater body dissatisfaction than product images, there was no significant effect of disclaimer label. Internalisation of the thin ideal was found to moderate the effect of disclaimer label, such that internalisation predicted increased body dissatisfaction in the no label and small label conditions, but not in the larger label conditions. Overall, the results showed no benefit for any size of disclaimer label in ameliorating the negative effect of viewing thin-ideal media images. It was concluded that more extensive research is required before the effective implementation of disclaimer labels.

Key words: media; disclaimer labels; body dissatisfaction; social comparison; fashion magazines; internalisation

High levels of body dissatisfaction, particularly with body shape and weight, have been documented in women across a number of western industrialised countries (Frederick, Forbes, Grigorian, & Jarcho, 2007; Frederick, Peplau, & Lever, 2006; Frederick, Sandhu, Morse, & Swami, 2016; Swami et al., 2010). Such body dissatisfaction and accompanying disordered eating have generally been attributed to sociocultural factors (e.g., Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999; Tiggemann, 2011). The most prominent sociocultural model, the Tripartite Influence Model (Thompson et al., 1999), holds that current societal standards for female beauty emphasise the desirability of thinness. Despite its increasing unattainability (Spitzer, Henderson, & Zivian, 1999), the thin ideal is nevertheless internalised by many women as a standard for themselves, resulting in body dissatisfaction when they fail to meet the standard. The Tripartite Influence Model identifies family, peers, and media as the three main sociocultural transmitters of beauty ideals. Of these, the mass media are generally regarded as the most powerful and persuasive (Groesz, Levine, & Murnen, 2002) and so have been argued to play an important role in body dissatisfaction and disordered eating (e.g., Levine & Murnen, 2009). In support, both correlational and experimental evidence confirms that there is a reliable negative effect of exposure to thin idealised media images on women's body dissatisfaction, particularly for women who already have high levels of body concern or internalisation (for supporting meta-analyses, see Grabe, Ward, & Hyde, 2008; Groesz et al., 2002; Levine & Murnen, 2009; Want, 2009; for a counter-view, see Ferguson, 2013).

Accordingly, governments and policy makers internationally have begun the search for initiatives to ameliorate the demonstrated negative effects on body image of media-portrayed thin ideals (Krawitz, 2014). While media literacy training has shown some success (Levine & Smolak, 2006), such interventions target selected individuals and most often require multiple sessions and specialised environments (Richardson & Paxton, 2010; Wilksch

& Wade, 2009). Thus there is a pressing need for simpler but ecologically valid universal interventions that target the broader population (Neumark-Sztainer et al., 2006). One such strategy proposed in a number of countries, including France, the United Kingdom, and Australia, is the addition of a disclaimer or warning label to advertisements and other media images that have been air-brushed or subject to digital alteration, as most contemporary media images indeed are (Bennett, 2008). In 2012, Israel became the first country to actually enact legislation (the "Photoshop Law") requiring the advertising industry to disclose when images have been digitally enhanced to make the model thinner (Krawitz, 2014).

Although disclaimer labels represent an attractive strategy that can be relatively easily implemented, as yet there has been little empirical evidence supporting their effectiveness. To the best of our knowledge, at the time of the present study, only one study by Slater, Tiggemann, Firth, and Hawkins (2012) had shown that disclaimer labels attached to fashion shoot images resulted in reduced body dissatisfaction. In contrast, a growing number of studies have now found that disclaimers of digital alteration attached to fashion advertisements confer no positive benefit (Ata, Thompson, & Small, 2013; Bury, Tiggemann, & Slater, 2016b; Frederick, Sandhu, Scott, & Akbari, 2016; Tiggemann, Slater, Bury, Hawkins, & Firth, 2013 – although see Harmon & Rudd, 2016, for a small positive effect). Some studies have even reported counter-productive effects for some forms of disclaimer. For example, Tiggemann et al. (2013) and Bury et al. (2016b) found that specifically worded disclaimers actually led to increased body dissatisfaction among women high on trait appearance comparison, while Selimbegović and Chatard (2015) reported that a single exposure to a disclaimer label led to increased negative thought accessibility over two months.

Some insight into the lack of positive effects for disclaimer labels comes from studies that have included measures of social comparison processing. The implicit rationale behind

the use of disclaimer labels is that they serve to inform the reader that the fashion image is not realistic and therefore does not present a relevant or appropriate target for social comparison, and hence body satisfaction should be preserved (Tiggemann et al., 2013). However, Tiggemann et al. (2013) and Bury, Tiggemann, and Slater (2016a,b) found that the addition of disclaimer labels did *not* lead to lower perceived realism or lower social comparison as expected (and widely assumed). In one study (Tiggemann et al., 2013, Experiment 1), disclaimer labels actually led to higher judgements of self-relevance and greater appearance comparison. The authors speculated that disclaimer labels may paradoxically serve to encourage women to pay more attention to the model's body than they normally would.

The most obvious difference between the one positive published finding (Slater et al., 2012) and the negative findings (Ata et al., 2013; Bury et al., 2016b; Frederick, Sandhu, Scott, & Akbari, 2016; Tiggemann et al., 2013) is in the nature of the stimulus images used. The former positive study used fashion shoot images, whereas the negative studies used advertisements as experimental stimuli. Fashion shoots or spreads are a common but understudied content of women's fashion magazines that typically show a single thin and attractive model wearing a range of fashionable clothes and accessories. Tiggemann et al. (2013) have suggested that the models in fashion shoots may appear more natural and be presented in a more realistic context than the artificially perfected images presented in advertisements. The latter are obviously highly constructed in both the depiction of the woman's body and in the surrounding layout and text, in their attempt to present an idealistically happy and successful life resulting from use of the advertised product (Engeln-Maddox, 2006; Tiggemann & Polivy, 2010). It seems possible, then, that disclaimer labels on fashion advertisements may offer little benefit because women simply do not expect these images to be realistic. More generally, Want (2009) has argued that media research has paid

insufficient attention to the context of images. In the light of the Slater et al. (2012) result, here we hypothesised that disclaimer labels added to fashion shoots would prove effective.

Thus the aim of the present study was to investigate the addition of disclaimer labels to fashion shoot images, replicating Slater et al. (2012). Fashion shoots represent one form of content in women's magazines that has not often been the subject of studies of media effects. We extended the original study in a number of ways. First, we included a product control condition to see whether exposure to fashion shoot images does lead to increased body dissatisfaction like other media images. Second, we included measures of perceived realism and social comparison processing. Specifically, the extent of (state) social comparison processing in response to the fashion shoot images was explicitly assessed and tested as a potential underlying mechanism. Third, we assessed the trait measures of appearance comparison and internalisation as potential moderating variables. Just as there are demonstrated individual differences in vulnerability to media images (Groesz et al., 2002), there are likely individual differences that moderate the effect of disclaimer labels on these images. Both trait appearance comparison and internalisation have been found to moderate the effect of thin ideal images on body dissatisfaction (Dittmar & Howard, 2004; Yamamiya, Cash, Melnyk, Posavac, & Posavac, 2005).

In addition, we sought to investigate the impact of disclaimer label size. Even though they have not proved effective, women do report noticing disclaimer labels of the size used in previous studies and likely to be used naturalistically (Ata et al., 2013). Eye-tracking research has confirmed that women visually attend to such disclaimer labels (Bury, Tiggemann, & Slater, 2014, 2016a). Nevertheless, it is possible that a larger sized and more visually obvious disclaimer may prove more effective. In particular, we tested the effect of a label conforming to the specifications of the Israeli Photoshop Law which states that the disclaimer statement must feature prominently and take up a minimum of 7% of the entire image (Krawitz, 2014).

In sum, the present study investigated the effect on body dissatisfaction of the addition of disclaimer labels of varying size to fashion shoots. Based on Slater et al.'s (2012) finding, it was expected that disclaimer labels informing of digital enhancement on such images would ameliorate negative effects on body satisfaction. It was expected that this effect might be greater for larger labels. Further, it was predicted that fashion shoots labelled as digitally altered would be judged as less realistic than unlabelled fashion shoots and consequently activate less appearance-based social comparison. Finally, trait appearance comparison and internalisation were tested as moderators of the effect.

Method

Design

The study employed a between subjects experimental design, with five levels of the independent variable of image type: product images (unlabelled), thin ideal images with no disclaimer label, thin ideal images with small label, thin ideal images with large label, and thin ideal images with very large label. The main dependent variables were body dissatisfaction and state appearance comparison. Trait social comparison and internalisation of the thin ideal were examined as potential moderating variables.

Participants

Participants were 320 female undergraduate students at Flinders University (in South Australia) aged between 18 and 30 years. They were randomly allocated to one of the five experimental conditions (subject to equal n), resulting in 64 participants in each condition.

Materials

Experimental manipulation: Image type. Participants in the product control condition viewed 14 colour double-page magazine fashion shoots which featured products (e.g., jewellery, shoes, handbags, perfume) without any people. Participants in the other four conditions viewed 14 colour double-page fashion shoots which consisted of 12 fashion shoots

featuring the face and at least three-quarters of the body of a thin and attractive female model, plus 2 product fashion shoots. The fashion shoots were printed on high quality photographic paper and presented in a folder to imitate the format of a fashion magazine.

The fashion shoots were sourced from locally available Australian women's fashion magazines (e.g., *Vogue*, *Harper's Bazaar*, *InStyle*) published during 2015. The final image sets were selected from an initial pool of 82 fashion shoots (65 thin-ideal and 17 product). The images were rated by a small panel ($N = 3$) of female raters from the target age group for glossiness, attractiveness, colourfulness, and general appeal on a series of 5-point Likert scales (1 = *not at all*, 5 = *extremely*), which were then averaged to form a measure of overall appeal. The final set of product ($M = 3.01$, $SD = 0.34$) and thin-ideal fashion shoots ($M = 3.06$, $SD = 0.48$) were well matched on overall appeal, $t(26) = 0.34$, $p = .74$. In addition, ratings of the thinness of the models in the fashion shoots ($M = 4.25$, $SD = 0.47$) confirmed that the models were representative of the thin ideal.

Four different versions of the thin-ideal fashion shoots were constructed: with no label (i.e., unchanged original image), with a small label, with a large label, and with a very large label. In all conditions, the label read "Warning: These images have been digitally altered". The small label was written in 11pt Calibri font in either black or white (to contrast with the colour of the background) and was positioned in the bottom right corner of the fashion spread, in line with previous studies (Ata et al., 2013; Slater et al., 2012; Tiggemann et al., 2013) and the 'reality check' labels beginning to be used in some magazines (e.g., *Girlfriend*). The large label was written in 22pt Calibri font and placed in the top left corner of the spread to potentially increase visual prominence. Finally, the very large label was designed to comprise 7% of the page in line with the legislation recently introduced in Israel. It was written in 26pt Calibri font and placed in the bottom right corner of the double page spread.

Body dissatisfaction. Following Heinberg and Thompson (1995), seven visual analogue scales (VAS) were used to obtain measures of mood and state body dissatisfaction, both before and immediately after viewing the 14 fashion shoots. The five mood items (not analysed here) were included to mask the focus on body dissatisfaction. Each scale consisted of a 100 mm continuous horizontal line (with poles labelled *none* to *very much*). Participants were instructed to make a small vertical mark to indicate how they felt "right now". Responses were measured to the nearest millimetre from the left-hand side. The two body dissatisfaction dimensions ("weight dissatisfaction" and "appearance dissatisfaction") were averaged to produce a body dissatisfaction score ranging from 0 to 100, with higher scores representing greater body dissatisfaction. VAS have been shown to be valid measures of body dissatisfaction, correlating significantly with similar yet more complex measures of body image disturbance (Heinberg & Thompson, 1995). In the current study, internal reliability was acceptable for both pre-exposure ($\alpha = .82$) and post-exposure body dissatisfaction ($\alpha = .87$).

Perceived realism. Perceived realism was measured by the three items used by Slater et al. (2012): (1) "The models in the fashion shoots were realistic"; (2) "The models in the fashion shoots were attainable for the average woman"; (3) "The models in the fashion shoots present a reasonable ideal for me". Participants responded to these items using a 7-point scale that ranged from *strongly disagree* (1) to *strongly agree* (7). An overall perceived realism score was calculated by averaging scores on the three items. The items had acceptable internal reliability ($\alpha = .79$).

State appearance comparison. The level of appearance comparison participants engaged in while viewing the fashion shoots was measured by the State Appearance Comparison Scale of Tiggemann and McGill (2004). Participants indicated on three 7-point Likert scales the extent to which they thought about their appearance when viewing the

images (1 = *no thought about appearance*, 7 = *a lot of thought*), and the extent to which they compared their overall appearance and specific body parts respectively with those of the people they saw in the images they viewed (1 = *no comparison*, 7 = *a lot of comparison*). A total score for state appearance comparison was calculated by averaging the three items, producing a scale ranging from 1 to 7. Items in this scale have been shown to be highly inter-correlated ($r = .71 - .82$) (Tiggemann & McGill, 2004). In the current study, the scale had good internal reliability ($\alpha = .89$).

      Trait tendency for appearance comparison. The Physical Appearance Comparison Scale (PACS) developed by Thompson, Heinberg, and Tantleff (1991) was used to measure the trait tendency to engage in social comparison based on appearance. Participants indicated how often they make physical appearance comparisons with others in five different situations (e.g., "At parties or other social events, I compare my physical appearance to the physical appearance of others") on a 5-point Likert-type scale (1 = *never*, 5 = *always*). Scores on the five items were averaged to create a measure of trait appearance comparison ranging from 1 to 5, with higher scores indicating a greater tendency to engage in appearance comparison. The PACS has established convergent and divergent validity and test-retest reliability ($r = .72$) (Thompson et al., 1991). In the present sample, internal reliability fell slightly short of acceptable ($\alpha = .68$), so results concerning this variable should be viewed with some caution.

      Internalisation of thin ideal. Internalisation of the thin ideal was measured using the Thin/Low Body Fat subscale of the most recent version of the Sociocultural Attitudes Towards Appearance Questionnaire-4 (SATAQ-4; Schaefer et al., 2015). This subscale consists of 5 items (e.g., "I want my body to look very thin") to which participants respond on a 5-point scale from 1 (*definitely disagree*) to 5 (*definitely agree*). Items are averaged to create an overall internalisation score. The subscale has established internal consistency ($\alpha =$

.82 - .91) and convergent validity among women (Schaefer et al., 2015), and in the current sample internal reliability was acceptable (α = .80).

Procedure

Following approval by the Institutional Research Ethics Committee, participants were recruited for a study examining the "effectiveness of magazine fashion shoots". They were randomly assigned to one of five experimental conditions and were tested individually in testing sessions that lasted approximately 30 minutes. To aid the cover story, participants first completed a questionnaire about their magazine and shopping habits, and then completed the pre-exposure VAS measures of mood and body dissatisfaction. Next, participants viewed the fashion shoots in the folder for 45 seconds each and were asked to rate each fashion shoot on four items ("If I saw this fashion shoot in a magazine, it would catch my eye", "This fashion shoot is visually appealing", "This fashion shoot is creative" and "On the whole, this fashion shoot is effective at promoting the clothes") on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). This was to ensure that participants attended to the images as well as to lend further credibility to the cover story.

After viewing the 14 double-page fashion shoots participants completed post-exposure VAS measures of mood and body dissatisfaction, as well as measures of perceived realism and state appearance comparison (experimental groups only). Finally, participants completed measures of trait appearance comparison and internalisation of the thin ideal, before having their height and weight measured (with their consent). Participants received course credit for their participation and were debriefed following completion of data collection via an online system.

Results

Sample Characteristics

The women in the sample had a mean age of 20.25 years ($SD = 2.61$). Mean body mass index (BMI) was 22.89 ($SD = 4.81$), which is within the normal weight range (BMI = 18.5-24.9). The most popular magazine was *Women's Weekly* (read at least 'sometimes' by 57.1%), followed by *Cosmopolitan* (50.6%). The median time spent reading magazines per month was 10-30 minutes. The median time spent shopping for clothes per month in stores was 1-2 hours and online was 30-60 minutes.

A series of one-way ANOVAs showed that the five experimental groups did not differ in age, $F(4, 315) = 0.76$, $p = .55$, $\eta_p^2 = .01$, BMI, $F(4, 310) = 0.62$, $p = .65$, $\eta_p^2 = .01$, time spent looking at magazines, $F(4, 315) = 0.42$, $p = .79$, $\eta_p^2 = .01$, or time spent shopping for clothes, $F(4, 315) = 0.18$, $p = .95$, $\eta_p^2 < .01$. Importantly, they also did not differ on initial level of body dissatisfaction, $F(4, 315) = 0.58$, $p = .68$, $\eta_p^2 = .01$, suggesting that random assignment to experimental condition was successful. In addition, the groups did not differ significantly on levels of trait appearance comparison, $F(4, 315) = 1.04$, $p = .39$, $\eta_p^2 = .01$, or internalisation, $F(4, 315) = 0.64$, $p = .63$, $\eta_p^2 = .01$, indicating that these constructs were not reactive to experimental manipulation.

Effect of Disclaimer Labels on Body Dissatisfaction

In order to determine whether there were significant group differences on body dissatisfaction, a single ANCOVA with orthogonal planned comparisons using the Lmatrix subcommand was performed. Pre-exposure body dissatisfaction was entered as a covariate to control for individual differences. The first planned comparison compared product control images against the thin-ideal images (contrast: +4 -1 -1 -1 -1). Subsequent comparisons compared the no disclaimer label condition against the label conditions (contrast: 0 -3 +1 +1 +1), the small label against the larger labels (contrast: 0 0 -2 +1 +1), and the large label against the very large label (contrast: 0 0 0 -1 +1). Table 1 shows the resulting adjusted means (controlling for pre-exposure scores) by condition.

The first planned comparison which addressed the difference between product and thin-ideal fashion shoot images was statistically significant, $F(1, 314) = 4.55$, $p = .03$, $\eta_p^2 = .01$. As can be seen from Table 1, exposure to the thin-ideal fashion shoots (irrespective of label) resulted in greater body dissatisfaction than exposure to the product images. However, none of the other three planned comparisons which addressed the effect of labelling of the thin-deal fashion shoots proved significant. Specifically, there was no difference in body dissatisfaction between the no label and label conditions, $F(1, 314) = 0.01$, $p = .92$, $\eta_p^2 < .01$, between the small and larger labels, $F(1, 314) = 0.90$, $p = .34$, $\eta_p^2 < .01$, or between the large and very large labels, $F(1, 314) = 0.36$, $p = .55$, $\eta_p^2 < .01$.

Effect of Disclaimer Labels on Perceived Realism

Table 1 also displays the means for perceived realism for the four thin-ideal conditions. An ANOVA with orthogonal planned comparisons showed that there was no significant difference between the no label and label conditions on perceived realism, $F(1, 252) = 0.46$, $p = .50$, $\eta_p^2 < .01$. Likewise, there was no significant difference between the small label and larger labels, $F(1, 252) = 2.20$, $p = .14$, $\eta_p^2 = .01$, nor between the large and very large label, $F(1, 252) = 0.08$, $p = .78$, $\eta_p^2 < .01$. These results show that disclaimer labels did not have a significant effect on perceived realism.

The Role of State Appearance Comparison

Table 1 also displays the means for state appearance comparison for the four thin-ideal conditions. Again there was no significant difference on state appearance comparison between the no label and label conditions, $F(1, 252) = 1.37$, $p = .24$, $\eta_p^2 = .01$, or between the small and larger label conditions, $F(1, 252) = 1.26$, $p = .26$, $\eta_p^2 = .01$, and large and very large label conditions, $F(1, 252) = 0.06$, $p = .81$, $\eta_p^2 < .01$. These results show that disclaimer labels had no significant effect on state appearance comparison.

Nevertheless, irrespective of label condition, state appearance comparison was strongly correlated with post-exposure body dissatisfaction, $r = .54$, $p < .01$. A hierarchal regression analysis was conducted to test whether state appearance comparison was a significant predictor of change in body dissatisfaction. Accordingly, pre-exposure body dissatisfaction was entered on Step 1, followed by state appearance comparison on Step 2. It was found that Step 2 explained a significant amount of additional variance in post-exposure body dissatisfaction over and above initial body dissatisfaction, $R^2_{change} = .02$, $F_{change}(1, 253) = 28.16$, $p < .01$, $B = 2.54$, $\beta = .17$. Thus, regardless of disclaimer label condition, state appearance comparison significantly predicted an increase in body dissatisfaction in response to the thin-ideal fashion shoot images.

Trait Appearance Comparison as a Moderator

A hierarchical regression analysis was used to test whether trait appearance comparison moderated the effect of disclaimer label on body dissatisfaction. As recommended by Aiken and West (1991), trait appearance comparison scores were centred around the mean ($M = 3.24$) to reduce multi-collinearity. Four dichotomous dummy-coded variables were created: no label (0, 1, 0, 0, 0), small label (0, 0, 1, 0, 0), large label (0, 0, 0, 1, 0) and very large label (0, 0, 0, 0, 1), with product as the reference group. Four product terms were formed to represent interactions between the label types and trait appearance comparison. Pre-exposure body dissatisfaction was entered at Step 1, the four dummy coded variables were entered at Step 2, centred trait appearance comparison at Step 3, and the interaction terms at Step 4.

It was found that Step 3 accounted for significant additional variance, $R^2_{change} = .01$, $F_{change}(1, 313) = 19.69$, $p < .01$, indicating that trait appearance comparison was itself a significant predictor of post-exposure body dissatisfaction. However, Step 4 failed to explain significant additional variance, $R^2_{change} = .01$, $F_{change}(4, 309) = 1.91$, $p = .11$. Thus trait

appearance comparison did not moderate the effect of disclaimer label on body dissatisfaction.

Internalisation of the Thin Ideal as a Moderator

A similar hierarchical regression analysis was conducted to test whether internalisation moderated the effect of disclaimer label on body dissatisfaction. Internalisation scores were centred around the mean ($M = 3.21$). Step 3 accounted for significant additional variance in body dissatisfaction, $R^2_{change} < .01$, $F_{change}(1, 313) = 4.70$, $p = .03$, indicating that internalisation was a significant predictor of increased body dissatisfaction. More importantly, Step 4 explained significant additional variance, $R^2_{change} < .01$, $F_{change}(4, 309) = 2.86$, $p = .02$. That is, there was a significant interaction between internalisation and disclaimer label on post-exposure body dissatisfaction.

To illustrate the form of the significant interaction, the relationship was graphed (see Figure 1). Following the recommendation of Aiken and West (1991), one standard deviation below and above the mean were used to represent low and high levels respectively of internalisation. Simple slopes analyses indicated that internalisation was not related to body dissatisfaction in the product condition ($\beta = .06$, $p = .31$). Nor was it related in the large ($\beta = -.04$, $p = .49$), or very large label conditions ($\beta = -.01$, $p = .87$). However, for the no label ($\beta = .19$, $p < .01$) and small label conditions ($\beta = .13$, $p = .03$), women higher on internalisation experienced greater body dissatisfaction in response to exposure to the thin-ideal fashion shoot images.

Discussion

The present study aimed to test the effectiveness of disclaimer labels in preserving body satisfaction. The major findings are clear. First, acute exposure to thin-ideal fashion shoot images resulted in greater body dissatisfaction than did exposure to control product images. Second, in contrast to Slater et al.'s (2012) result, there was no significant effect of

disclaimer label on body dissatisfaction, regardless of label size. Third, internalisation was found to moderate the effect of disclaimer label on body dissatisfaction, such that internalisation was related to increased body dissatisfaction for the no label and small label conditions, but not for the larger disclaimer labels.

The first major finding that exposure to thin-ideal fashion shoot images has a negative effect on women's body image adds fashion shoots to the list of media formats producing negative effects. Although fashion shoots are a common content of fashion magazines and thus an ecologically valid format, to the best of our knowledge the present study represents the first experimental examination of actual thin-ideal fashion shoot images against a product control condition. Thus the result adds one more study to the growing body of evidence for the consistently observed negative effects of thin-ideal media images on women's body image (Groesz et al., 2002). Importantly, the result also reassures that the specific (fashion shoot) images viewed in the present study were sufficient to produce a negative effect on body image in their own right and so represent an appropriate stimulus set on which to test the potentially ameliorating effect of disclaimer labels.

The second major finding was that the addition of disclaimer labels had no effect on women's resulting body image. Although we had reasoned that fashion shoots may offer more realistic images of women than offered by the highly constructed artificial nature of fashion advertisements, the study failed to replicate Slater et al.'s (2012) positive finding for labels attached to fashion shoot images. Instead, the present null findings for disclaimer labels on fashion shoots are consistent with the growing body of research using fashion magazine advertisements which likewise shows no positive benefit (Ata et al., 2013; Bury et al., 2016b; Frederick, Sandhu, Scott, & Akbari, 2016; Tiggemann et al., 2013). This suggests that regardless of specific thin-ideal image context, disclaimer labels appear to have little protective effect on women's body dissatisfaction.

The perplexing question remains as to why disclaimer labels proved effective in terms of ameliorating body dissatisfaction in the Slater et al. (2012) study, but ineffective in the present experiment. In addition to the possibility of a Type I error, there were a number of minor procedural differences and neither state nor trait appearance comparison were measured in the former study. Here, consistent with previous research (Bessenoff, 2006; Tiggemann & McGill, 2004; Tiggemann, Polivy, & Hargreaves, 2009; Tiggemann & Slater, 2004) and theoretical explanations of the negative effects of media images (Thompson et al., 1999; Tiggemann, 2011), the more state appearance comparison participants reported engaging in, the greater the increase in body dissatisfaction in response to thin ideal images (irrespective of disclaimer label condition). Importantly, however, the disclaimer labels did not reduce perceived realism or the amount of social comparison processing engaged in while viewing the thin-ideal fashion shoots. This is consistent with some previous research with advertising material (Bury et al., 2016b; Tiggemann et al., 2013) and suggests that disclaimer labels are not effective in decreasing social comparison. Recent more complex accounts of social comparison suggest that comparisons are often made spontaneously and unintentionally, even when it is realised that the comparison is inappropriate (Gilbert, Giesler, & Morris, 1995). Without any decrease in social comparison processing, one would not expect any corresponding decrease in body dissatisfaction. Observation suggests that in the intervening years between the Slater et al. (2012) and present studies, fashion shoots may have become increasingly artistic and stylised with the use of different perspectives and photographic techniques within the spread (e.g., close-up vs. wider, black and white vs. colour) and hence may have become less realistic and more like fashion advertisements. It is also possible that over the same time period women have become increasingly knowledgeable about airbrushing and digital enhancement techniques (Paraskeva, Lewis-Smith, & Diedrichs, 2015).

The study makes a further novel contribution in investigating disclaimer labels of different size. In so doing, it is the first to examine the effect of disclaimer labels of the size specified in the Israeli "Photoshop Law", currently the only enacted piece of legislation. We had reasoned that larger labels with their greater visual prominence might prove more effective in preserving body satisfaction than smaller more discreet labels. However, the findings clearly show that this was not the case. The large labels were no more effective at ameliorating body dissatisfaction than the small labels tested in this and previous studies.

The study's third major finding is that internalisation moderated the effect of disclaimer label on body dissatisfaction. While responses to viewing the two larger label sizes were not influenced by internalisation, exposure to the other conditions was. Specifically, women with higher internalisation experienced greater body dissatisfaction in response to exposure to thin-ideal images with no label or a small disclaimer label. Such stronger effects of media exposure for women high on internalisation are consistent with previous research (Yamamiya et al., 2005). Thus, despite there being no main effect of label size on body dissatisfaction, the interaction results show that the large labels appear to act differently from the small (or no) label. It may be that the large labels are so prominent that they overshadow the content of the fashion shoot, resulting in participants responding (uniformly) to the label rather than to the fashion shoot image. Alternatively, the large labels may elicit some form of reactance (Miron & Brehm, 2006), particularly among women low on internalisation, whereby women are motivated to react oppositionally. On balance, these results suggest that the use of larger disclaimer labels may not be helpful.

Together, the findings have a number of important practical implications. No matter how reasonable or appealing proposals for the use of disclaimer labels sound, they should not simply be assumed to be effective. Rather, they warrant systematic and thorough evaluation. On the basis of the current small body of research, one would caution against the

implementation of disclaimer labels, as some forms of label have been found to have unintended negative consequences for some women. It is plausible that detailed descriptions of air-bushing and other digital modification techniques may lead vulnerable women and girls to pay more, rather than less, attention to the model's body and relevant body parts than they would normally, as has been suggested by some eye-tracking studies (Bury et al., 2014, 2016a). Recent research has also indicated that women themselves are sceptical about the effectiveness of disclaimer labels in protecting body image. In particular, in their survey of consumer opinion, Paraskeva et al. (2015) found qualitatively and quantitatively that the majority of adults believed that labelling is unlikely to improve body image. Participants thought labels are likely to be disregarded, are unable to provide sufficient information to be effective, and would make no difference to the way people feel about their own appearance as they are still exposed to the harmful images. The majority also indicated that showcasing greater diversity of appearance in the media would be a more effective strategy to broaden appearance ideals and improve body image. This is consistent with research demonstrating that, in contrast to thin models, the use of average-size models in advertising does not result in decreased body satisfaction (Diedrichs & Lee, 2011; Halliwell & Dittmar, 2004). Interestingly, adolescent girls were more likely to think that disclaimers would be a helpful strategy for promoting healthy body image, although they also expressed some scepticism.

Like all studies, the findings of the present research should be interpreted in the context of a number of limitations. First, the sample was restricted to Australian university students and thus results may not generalise to groups of older or younger women. In particular, Paraskeva et al.'s (2015) consumer survey suggests that disclaimer labels may have a stronger effect for adolescents. Second, the experiments took place in a laboratory setting. Although the reading of fashion magazines in general, and the looking at fashion shoots in particular, is common everyday behaviour, the way they were viewed here is

different from how women might read them in more naturalistic settings. Third, the findings are restricted to the specific wording of the disclaimer labels. Although this was chosen to match that being suggested in a number of different countries, previous research has shown that the actual wording (e.g., generic vs. specific) does matter (Bury et al., 2014; Tiggemann et al., 2013). Fourth, while the measures focused on body dissatisfaction, women also experience high levels of facial dissatisfaction (Frederick, Kelly, Latner, Sandhu, & Tsong, 2016). Future research might investigate the effect of disclaimer labels on specifically feelings about facial appearance. Finally, it may be that acute exposure to disclaimer labels on 12 thin-ideal fashion shoots in a single session is simply insufficient to produce a positive effect. Instead, it is possible that disclaimer labels may have a cumulative effect with repeated exposure over different sessions, providing women with the necessary time to reflect on and process the implications in order to prevent or mentally undo their otherwise spontaneous appearance comparisons (Gilbert et al., 1995).

Despite the above limitations, the present experiment has shown that disclaimer labels attached to fashion shoots, just like advertisements, do not ameliorate the negative effects of acute exposure to such images on women's body dissatisfaction. Further research in this area will be critical in guiding policy makers towards the most effective form of intervention. This is a particularly pressing issue, given that the use of disclaimer labels is a strategy with some likelihood of being put into effect. Currently, the body of research as a whole suggests that social policy efforts might be better directed at broadening the representation of women's bodies in the media, rather than implementing too rapidly potentially ineffective disclaimer labels.

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Table 1.

Means (SD) for Body Dissatisfaction, Perceived Realism, and State Appearance Comparison

by Experimental Condition.

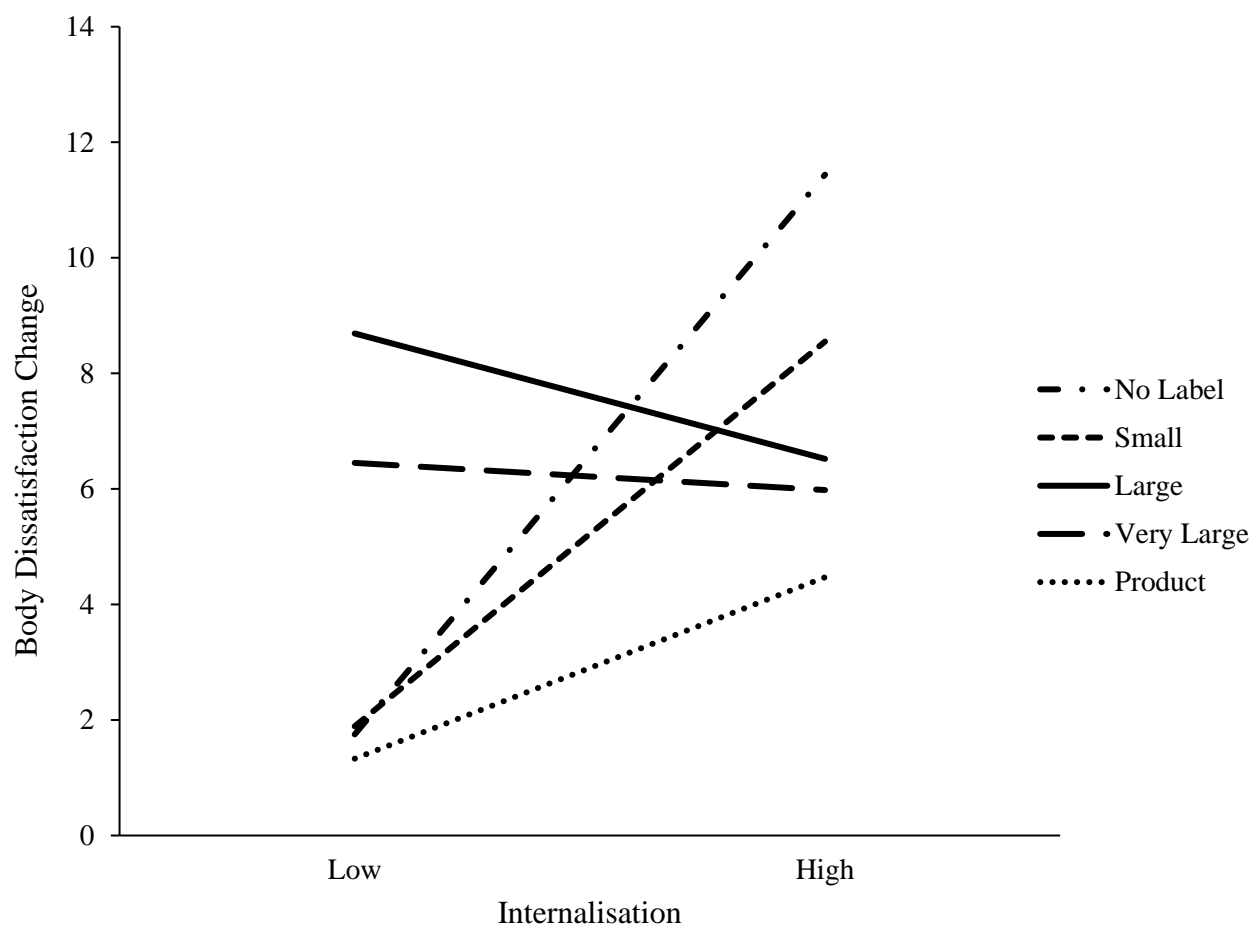|	Control	Thin Ideal Images			
	Product	No Label	Small	Large	Very Large
Body Dissatisfaction [a]	46.49 (1.46)	50.08 (1.46)	48.79 (1.46)	51.10 (1.46)	49.86 (1.46)
Perceived Realism	-	3.02 (1.03)	3.08 (1.24)	2.79 (1.26)	2.85 (1.09)
State Appearance Comparison	-	3.38 (1.82)	3.87 (1.59)	3.61 (1.71)	3.54 (1.78)

[a] *Note*. Adjusted means (*SE*).

Figure 1. Body dissatisfaction as a function of disclaimer label condition and internalisation