

# A pilot study investigating whether focusing on body functionality can protect women from the potential negative effects of viewing thin-ideal media images

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### Running head: FUNCTIONALITY FOCUS AND THE THIN IDEAL

A Pilot Study Investigating Whether Focusing on Body Functionality Can Protect Women

from the Potential Negative Effects of Viewing Thin-Ideal Media Images

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#### Abstract

This pilot study explored whether focusing on body functionality (i.e., everything the body can do) can protect women from potential harmful effects of exposure to thin-ideal images. Seventy women ( $M_{age}$  = 20.61) completed an assignment wherein they either described the functionality of their body or the routes that they often travel (control). Afterward, participants were exposed to a series of thin-ideal images. Appearance and functionality satisfaction, self-objectification, and body appreciation were measured after exposure. Results showed that participants who focused on body functionality experienced greater functionality satisfaction and body appreciation compared to control participants. Therefore, focusing on body functionality could be a beneficial individual-level technique that women can use to protect and promote a positive body image in the face of thin-ideal images. Research including a condition wherein participants are exposed to (product-only) control images is necessary to draw firmer conclusions.

*Keywords*: body image, body functionality, body appreciation, thin ideal, media exposure, prevention

A Pilot Study Investigating Whether Focusing on Body Functionality Can Protect Women

from the Potential Negative Effects of Viewing Thin-Ideal Media Images

According to the *sociocultural perspective* of body image, societal ideals of beauty are transmitted via a variety of sociocultural channels and are subsequently internalised by individuals. In turn, satisfaction or dissatisfaction with one's own appearance will depend on how closely one's body emulates these ideals (Tiggemann, 2011). Unfortunately, the current beauty ideal is more unrealistic than it ever has been, with the "ideal woman" being extremely thin (Diedrichs & Lee, 2011; Fouts & Burggraf, 2000; Grabe, Ward, & Hyde, 2008). Mass media are considered the most pervasive sociocultural channel that transmits this thin ideal (Tiggemann, 2011). Meta-analyses of correlational and experimental research have shown that exposure to thin-ideal media images is generally related to poorer body image outcomes, such as heightened body dissatisfaction (Grabe et al., 2008; Groesz, Levine, & Murnen, 2002) and *self-objectification* (Harper & Tiggemann, 2008), which entails viewing one's body from a third-person perspective and valuing oneself based predominantly on physical appearance (Fredrickson & Roberts, 1997).

Given the potential harmful effects of thin-ideal media images, societal-level strategies to mitigate their impact have been investigated. For example, adding information labels (about the weight status of models) to thin-ideal media images dampens their effect on women's body dissatisfaction (Veldhuis, Konijn, & Seidell, 2014). However, some societal-level strategies – such as implementing disclaimer labels for thin-ideal media images (about the digital alteration of specific body parts) – can actually *increase* body dissatisfaction in some individuals (e.g., those high in social comparison tendencies; Tiggemann, Slater, Bury, Hawkins, & Firth, 2013). Furthermore, implementing societal-level changes will likely take time and extensive effort, considering that the thin ideal is pervasive and many individuals and industries (e.g., the dieting industry) profit from this imagery (Tylka & Augustus-

Horvath, 2011). Therefore, it is also important to investigate *individual-level* strategies that women can use to protect themselves from the potential effects of the media on their body image.

One such individual-level strategy might be to teach women to focus on the functionality of their body. *Body functionality* encompasses everything that the body is capable of *doing* – rather than how it *looks* – and includes functions related to physical capacities (e.g., walking), health (e.g., digestion), senses (e.g., sight), creative endeavours (e.g., dancing), communication (e.g., body language), and self-care (e.g., showering; Alleva, Martijn, Van Breukelen, Jansen, & Karos, 2015). Alleva et al. (2015) have shown that a oneweek intervention training women with a negative body image to focus on their body functionality (using three structured writing assignments) led to improvements in body satisfaction and reductions in self-objectification, as well as to improvements in *body* appreciation, an "unconditional approval and respect for the body" (Avalos & Tylka, 2006; p. 486). Alleva et al. (2015) proposed that focusing on body functionality may improve body satisfaction by encouraging women to positively "reframe" how they view their body, from a potentially negative (appearance-focused) orientation to a positive (functionality-focused) orientation. Focusing on body functionality may reduce self-objectification because a functionality-based focus on the body is "antithetical" to self-objectification (Roberts & Waters, 2004) – it entails viewing the body as active and instrumental, rather than passive and aesthetic (Fredrickson & Roberts, 1997). Such a focus might also foster body appreciation by helping women realise the importance of their body for leading a normal and fulfilling life.

Although Alleva et al. (2015) demonstrated that focusing on body functionality can improve body image and reduce levels of self-objectification, they did not investigate how such a focus could impact women's responses to thin-ideal media imagery. Therefore, the aim of this pilot study was to explore whether focusing on body functionality can also be

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beneficial for protecting women from the potential harmful effects of thin-ideal media images. Drawing from Alleva et al., focusing on body functionality could protect women from these effects by making them feel more positively about their body. It may also encourage them to re-evaluate the importance of appearance – which is arguably the primary focus of thin-ideal imagery – in comparison to body functionality. The feelings of body appreciation that are fostered by focusing on body functionality could encourage women to adopt a protective processing style, whereby they reject unrealistic appearance ideals to maintain a positive view of their body (Andrew, Tiggemann, & Clark, 2015; Avalos et al., 2005; Halliwell, 2013; Wood-Barcalow, Tylka, & Augustus-Horvath, 2010).

To achieve this aim, participants completed a writing assignment that instructed them to describe the functionality of their body (the functionality group) or the routes that they often travel (the control group). Then, they were exposed to a set of thin-ideal media images. State body satisfaction was measured before the assignment and after exposure, and selfobjectification and body appreciation were measured after exposure. We expected that, after exposure, participants in the functionality group would demonstrate higher state body satisfaction and body appreciation, and lower levels of self-objectification, compared to control participants.

### Method

#### **Participants**

Participants were 70 women ( $n_{\text{functionality}} = 35$ ;  $n_{\text{control}} = 35$ ) between 18 and 28 years old ( $M_{\text{age}} = 20.61$ , SD = 2.11) with a body mass index (BMI) between 15.92 and 29.62 ( $M_{\text{BMI}} = 21.87$ , SD = 3.05). The participants were undergraduates at Maastricht University, where the student population is predominantly Caucasian.

### Materials

Writing assignment instructions. The instructions for the *functionality writing assignment* were modelled after those of Alleva et al. (2015). Participants obtained a description of "body functionality" and a list of body functions. Subsequently, participants were instructed to write about the functions of their body and to reflect on why those functions are personally meaningful. For the *control writing assignment*, participants were given a list of potential routes (e.g., from home to university) and route-related details (e.g., flowers, street signs). They were instructed to write about the routes that they often travel and to describe their details. All participants were told that they: (a) would spend 15 minutes on the assignment; (b) should not stop writing until the 15 minutes passed; and (c) should not worry about spelling or grammar. While writing, participants could refer back to their respective lists for inspiration. The content of all participants' writing assignment responses conformed to the instructions for their respective group.

**Thin-ideal media imagery.** A pool of 34 advertisements was pilot-tested by 12 undergraduate women (who did not participate in the main study). Each advertisement was retrieved via Google image search and featured only one female model. The pilot participants rated each advertisement using visual analogue scale (VAS) items to assess the models' perceived thinness (0 = extremely heavy to 100 = extremely thin) and attractiveness (0 =*extremely unattractive* to 100 = extremely attractive), and the advertisements' appeal (<math>0 =*extremely unappealing* to 100 = extremely appealing). An average of the three VAS items was calculated for each advertisement, and the 12 advertisements with the highest mean were selected (M = 68.47, SD = 3.13). The advertisements were for perfume (n = 7) and purses (n =5). They were interspersed with three product-only advertisements, rendering a set of 15 advertisements.

#### Measures

**Body satisfaction.** Body satisfaction was measured in terms of satisfaction with appearance and functionality. Appearance satisfaction was measured using two VAS items (Birkeland et al., 2005; Heinberg & Thompson, 1995). Participants indicated their current level of satisfaction *and* dissatisfaction (reverse-scored) with their physical appearance by sliding a bar on the computer screen (0 = none to 100 = extreme). Participants' responses to the two VAS items were averaged; higher scores indicate greater appearance satisfaction. These items have good 5-minute test-retest reliability and are sensitive to experimental manipulations (Birkeland et al., 2005). In this study, the internal consistency for these items was  $\alpha = .90$  (pretest) and  $\alpha = .95$  (posttest).

Functionality satisfaction was also measured using two VAS items. Participants indicated their current level of satisfaction *and* dissatisfaction (reverse-coded) with their "body functionality (i.e., everything your body can *do*)." The items were rated and scored in the same manner as the aforementioned items; higher scores represent greater functionality satisfaction. The internal consistency for these items was  $\alpha = .89$  (pretest) and  $\alpha = .89$  (posttest).

**Self-objectification.** Self-objectification was measured using the Self-Objectification Questionnaire (SOQ; Noll & Fredrickson, 1998). Participants ranked 10 body attributes according to how important they are to their physical self-concept (*least important* to *most important*). Five attributes pertain to appearance (e.g., weight) and five pertain to functionality (e.g., health). Each attribute was given a score from 0 (*least important*) to 9 (*most important*). The sum of the functionality attributes was then subtracted from the sum of the appearance attributes. Final scores range from -25 to 25; higher scores indicate higher levels of self-objectification. The SOQ demonstrated satisfactory construct validity in female undergraduates (Noll & Fredrickson, 1998). **Body appreciation.** Body appreciation was measured using the Body Appreciation Scale-2 (BAS-2; Tylka & Wood-Barcalow, 2015), comprising 10 items (e.g., "I respect my body") that are rated from 1 = never to 5 = always. Participants' scores on the 10 items were averaged; higher scores indicate greater body appreciation. The BAS-2 demonstrated good internal consistency and construct validity in undergraduate women (Tylka & Wood-Barcalow, 2015). In this study, the internal consistency of the BAS-2 was  $\alpha = .91$ .

### Procedure

This study was approved by the university's ethics committee. Participants were recruited by advertisements on campus for a study concerning "the impact of mood on writing style and on how advertisements are judged." Participants were randomly assigned to the functionality or control group (Graph Pad Software, 2012). First, they signed an informed consent sheet and completed the pretest measures of appearance and functionality satisfaction, and filler items (e.g., assessing mood). Afterward, they completed the writing assignment that ostensibly assessed their writing style. The experimenter asked the participants to read the instructions and to confirm their comprehension. She then left the room to assure participants' privacy and returned after 15 minutes. Next, the experimenter told the participants that they would view a series of advertisements on the computer screen, and that they should pay close attention because they would answer questions about them afterward. The experimenter started the slideshow and left the room until it was finished. Advertisements were presented for 20 seconds each (five minutes total). Afterward, participants completed the posttest measures of appearance and functionality satisfaction, self-objectification, body appreciation, filler items (e.g., assessing advertisement appeal), and demographic items concerning their age, weight, and height. Lastly, they described what they thought the study was about, and received a 10 Euro voucher or course credit for participation. Debriefing occurred via e-mail after data collection was completed.

#### Results

Table 1 presents participants' demographic, pretest, and posttest data. There were no group differences concerning age, BMI, or pretest appearance and functionality satisfaction (ps > .05), indicating that the randomisation was successful in creating similar groups.

Appearance and functionality satisfaction (posttest) were analysed as dependent variables in separate ANCOVAs, with Group (functionality vs. control) as the independent variable. Pretest appearance and functionality satisfaction, and BMI, were included as covariates. For appearance satisfaction, the analyses revealed a significant Pretest effect, F(1, 67) = 133.87, p < .001,  $\eta_p^2 = 0.66$ , and a nonsignificant Group effect, F(1, 67) = 0.24, p = .62,  $\eta_p^2 = 0.004$ . For functionality satisfaction, the analyses revealed significant effects of Pretest, F(1, 67) = 137.30, p < .001,  $\eta_p^2 = 0.67$ , and Group, F(1, 67) = 4.24, p = .04,  $\eta_p^2 = 0.06$ . For both analyses, BMI was a nonsignificant covariate (ps > .05) and had therefore been removed from the models.

Self-objectification and body appreciation were also analysed as dependent variables in separate ANCOVAs, with Group as the independent variable and BMI as the covariate. For self-objectification, the analyses revealed a nonsignificant Group effect, F(1, 68) = 0.92, p =.34,  $\eta_p^2 = 0.01$ . Again, BMI was a nonsignificant covariate and had been removed from the model (p > .05). For body appreciation, the analyses revealed significant effects of BMI, F(1,67) = 5.00, p = .03,  $\eta_p^2 = 0.07$ , and Group, F(1, 67) = 4.37, p = .04,  $\eta_p^2 = 0.06$ .

Lastly, four participants (in the functionality group) were aware of the study's true purpose. When the analyses were rerun without these participants, the Group effect on functionality satisfaction became marginally significant, F(1, 63) = 3.38, p = .07,  $\eta_p^2 = 0.05$ . The Group effect on body appreciation remained significant, F(1, 63) = 4.25, p = .04,  $\eta_p^2 = 0.06$ . All other results were similar.

### Discussion

This pilot study explored whether focusing on body functionality can protect women from the potential harmful effects of exposure to thin-ideal media images. As predicted, women in the functionality group experienced greater functionality satisfaction and body appreciation after exposure to thin-ideal imagery, compared to women in the control group. This suggests that focusing on body functionality might be a useful *individual-level* technique for helping women to promote a positive view of their body in the face of pervasive and unrealistic beauty ideals (Tylka & Augustus-Horvath, 2011). Unexpectedly, writing about body functionality did not lead to greater appearance satisfaction or lower self-objectification. Feelings that are more deeply internalised, such as viewing oneself from an observer perspective, could take more time and effort to change.

Although these findings are promising, future research is needed to draw firm conclusions. First, a similar study incorporating a control exposure condition (i.e., using product-only media images) is necessary to determine whether focusing on body functionality truly *buffers* the impact of thin-ideal imagery, as the present control participants did not experience any decreases in body satisfaction. Second, measures that specifically assess body appreciation and self-objectification as *state* variables – administered at both pretest *and* posttest – are necessary to conclude whether these aspects are changed by the intervention. Third, it is necessary to incorporate potential moderators, such as thin-ideal internalisation (Dittmar & Howard, 2004), to determine for whom the technique works best.

Importantly, the findings for functionality satisfaction became marginally significant when the "aware participants" were excluded. The effectiveness of the writing assignment could have actually alerted these participants to the purpose of the study (e.g., "I notice that this assignment makes me feel good about my body. Maybe that's the study's aim?"). Alternatively, it could indicate the impact of demand characteristics in such research on media effects. Another caveat of this study is that we did not measure the outcomes after completion of the writing assignment and before exposure (to decrease the likelihood that participants would discover the study's aim). For future studies, however, it would be insightful to acquire such "intermediate" data.

Additional directions for future research pertain to elucidating the underlying mechanisms of the present approach. For instance, in the context of exposure to thin-ideal imagery, focusing on body functionality may encourage women to view self vs. ideal appearance-discrepancies as less important (Halliwell, 2013), to discredit thin models as targets for social comparisons (Martijn et al., 2012), or to reveal different domains of the body besides appearance for self-improvement (an important motive underlying social comparison; cf. Knobloch-Westerwick & Romero, 2011). Future research could also investigate how participants respond to thin-ideal media images after having received a multisession functionality-based intervention (cf. Alleva et al., 2015).

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# Table 1

Demographic, Pretest, and Posttest Data for the Functionality and Control Groups

	Functionality Group (n = 35) M (SD)	Control Group (n = 35) M(SD)
Demographic information		
Age	20.20 (1.75)	21.03 (2.37)
BMI	21.64 (3.22)	22.11 (2.90)
Appearance satisfaction		
Pretest	61.57 (19.37)	57.43 (20.98)
Posttest	58.27 (21.71)	56.10 (22.34)
Functionality satisfaction		
Pretest	73.14 (19.45)	66.41 (22.13)
Posttest	77.70 (18.18)	67.07 (20.24)
Self-objectification		
Posttest	-7.23 (11.18)	-4.37 (13.62)
Body appreciation		
Posttest	3.61 (0.52)	3.27 (0.75)

*Note*. BMI = body mass index; Scores for self-objectification can range from -25 to 25.