

The Effect of Disclaimer Labels on the Internalization of Beauty Ideals

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Abstract

Exposure to idealized images has been associated with multiple negative effects on body image in women. Negative effects associated with exposure to idealized images are proposed to occur through social comparison processes and subsequently lead to the internalization of beauty ideals. One proposed solution to combat these negative effects is to add disclaimers on idealized images indicating the image has been digitally enhanced. However, a growing body of research suggest this solution will not be effective. The present study aimed to experimentally investigate the effect disclaimer labels have on the internalization of beauty ideals in women. Participants were 91 women between the ages of 18 to 33, who were randomly assigned to view idealized images without a disclaimer label (condition 1) or with a disclaimer label (condition 2). The internalization of beauty ideals after exposure to the idealized images was compared for women in both conditions, which revealed no effect of the presence of a disclaimer label on the internalization of beauty ideals was found. However, the perceived importance participants put on beauty ideals was found to predict the internalization of beauty ideals. Unexpectedly, age did not have a significant effect on the internalization of beauty ideals, regardless of condition. In sum, the present study showed no benefit to adding disclaimer labels to idealized images on social media, providing more support for the inefficacy of this proposed solution. Further research is required to identify factors that influence the internalization of beauty ideals to discover an effective solution for the negative effects associated with idealized images.

Keywords: beauty ideals, internalization of beauty ideals, perceived importance of beauty ideals, body image, disclaimer labels, social comparison, social media, Instagram.

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"Make me look like a filtered selfie", in 2021, 77% of American plastic surgeons reported their patients' specific desire to emulate an idealized appearance as seen on social media platforms. A dramatic increase compared to five years earlier when only 35% of surgeons reported this specific request (AAFPRS, 2022). In recent years, digital modification- and editing tools to enhance appearance have become widespread as technological developments have made them accessible to every smartphone user (Rajanala et al., 2018). People can create an idealized version of themselves by using 'beautifying' filters that can smoothen, slim, or skew faces and bodies. The increasing popularity of social media subsequently allows people to share and interact with these enhanced and idealized versions of reality created by its users. Instagram, a popular social media platform, reported over a billion monthly users worldwide in 2018 (Rodriguez, 2021). It is thus likely that billions of Instagram users are regularly exposed to digitally manipulated images on this platform alone.

This development could be problematic since an increasing body of research has documented a relationship between social media usage and poor body image outcomes (Fardouly & Vartanian, 2015; Holland & Tiggemann, 2016; Tiggemann & Slater, 2013). Media literacy, the ability to critically assess media content, has been proposed to protect against the negative effects associated with idealized images on people's wellbeing (McLean, Paxton, & Wertheim, 2016a). Specifically, disclaimer labels indicating a picture has been altered are a commonly proposed solution (McLean, Paxton, & Wertheim, 2016a; Tiggemann, Brown & Anderberg, 2019). The current study aimed to explore the efficacy of disclaimer labels as a protective factor against the desire to adhere to portrayed beauty ideals in idealized images.

What does it mean to be beautiful in 2022?

The reported desire to look like a "filtered selfie" does not give much clarity about the characteristics of this desired appearance. Even though ideas on beauty are susceptible to changes with time and location, general agreement exists within societies as to what constitutes beauty: a culturally prescribed ideal appearance (Fuente del Campo, 2002; Maymone et al., 2017). While some features, such as facial symmetry and even skin tone, are mostly consistent marks of beauty, other features are more prone to change (Maymone et al., 2017). For example, research by Maymone et al. (2017) analyzed the prevalence of skin tones in People Magazine's Most Beautiful rankings which revealed a wider variety

of skin tones are deemed beautiful in 2017 compared to 1990. This illustrates the important role mass media play in setting and spreading beauty ideals by constructing society's social reality (López-Guimèra, et al., 2010). Increasing multiculturalism in Western countries and global access to user-generated content on social media have exposed people to a wider variety of ethnicities and physical features (Deakin University, 2016; Maymone et al., 2017). As a result, features associated with non-Western ethnicities, such as large lips, have also been deemed more beautiful in recent years (Deakin University, 2016). To identify the current culturally prescribed ideal appearance, trends in plastic surgery can be analyzed.

A review of data from the AAFPRS (2022) and Villar (2021) reveals the current most popular procedures are rhinoplasty (reshaping of the nose), blepharoplasty (eyelid surgery) and rhytidectomy (facelift) (Villar, 2021). The increase or decline in the relative popularity of cosmetic procedures can illustrate the shifting nature of beauty ideals, as clearly depicted by the astounding 1258% increase in cheek implants from 2007 to 2020. Chin augmentation has similarly increased in popularity during those same years. Breast augmentation has been declining in relative popularity, while buttock enhancement procedures have increased in recent years (Villar, 2021). Non-invasive procedures, like soft tissue fillers often used for lip enhancements, have also increased in popularity (Villar, 2021). Using these data, a description of the current beauty ideal emerges: a face with a small nose, large lips, eyelids with minimal 'excess' skin, smooth skin without wrinkles or fine lines, defined cheekbones, a narrow chin, and large buttocks. These characteristics are often incorporated in beauty filters, hence why it is referred to as the "filtered selfie"-look.

The problem with 'perfection'

As previously mentioned, negative effects associated with exposure to idealized images have been documented in an increasing body of research (Fardouly & Vartanian, 2015, 2016; Hogue & Mills, 2019; Holland & Tiggeman, 2016; Tamplin, McLean, & Paxton, 2018). Kleemans et al. (2018) found that exposure to altered Instagram pictures directly caused a lower body image in women. Moreover, a study by Perkins et al. (2019) found that beauty filters on images even have the potential to trigger Body Dysmorphic Disorder (BDD). BDD is characterized by a preoccupation with perceived appearance defects and repetitive behaviors intended to hide, fix, or check them (Kuck et al., 2021). The perceived flaws are generally not observed by others or appear minimal to them. The use of beauty filters may make people lose touch with the reality of their appearance and trigger BDD (Kuck et al., 2021). Lastly, the use of edited pictures can result in a decrease in facial- and

bodily satisfaction for both men and women, while the desire to undergo cosmetic procedures significantly increases in women (Beos et al. 2021; Modica, 2020; Varman et al., 2021).

The desire to 'fix' perceived flaws in appearance, as experienced by people undergoing cosmetic procedures and people suffering from BDD, shows an "internalization of beauty ideals". This term refers to the degree to which someone desires to attain a culturally prescribed ideal appearance and engages in behaviors attempting to attain those ideals (Thompson et al., 1999; Thompson & Stice, 2001). This might be troublesome since current culturally prescribed beauty ideals are not necessarily physically attainable, yet still desired. Thompson et al. already noticed this apparent contradiction in 1999, referring to it as "a discrepancy between culture and physiology". The internalization of beauty ideals is considered a risk factor for body image problems and eating disorders (Hoffman & Warschburger, 2019; Smith, Hames, & Joiner, 2013). To combat the negative effects associated with the desire to conform to beauty ideals, it is important to understand when and why internalization occurs.

Internalization and social comparison

Festinger's social comparison theory (1954) can be used to explain the process of internalizing beauty ideals. Social comparison is the tendency of people to compare themselves to others to get a better sense of self (Aronson, Wilson, & Akert, 2014). People are especially likely to engage in comparison when there is no objective standard to compare themselves against (Aronson, Wilson, & Akert, 2014; Festinger, 1954). Considering beauty is influenced by culture, there is no objective standard to determine one's beauty, hence people engage in social comparison. Women are especially likely to engage in upward social comparison when exposed to idealized images (Strahan et al., 2006); Smith, Hames, & Joiner, 2013. Upward social comparison occurs when people compare themselves to others who they consider better than themselves regarding a certain ability or trait (Aronson, Wilson, & Akert, 2014). For example, when someone compares themselves to models, celebrities, or influencers. While such upward comparisons can be useful to determine the pinnacle of beauty, when someone strives to be as beautiful themselves, it could also result in a feeling of inadequacy (Aronson, Wilson, & Akert, 2014; Strahan et al., 2006). Research by Smith, Hames and Joiner (2013) revealed engaging in social upward comparisons on social media was associated with high levels of body dissatisfaction. Generally, people are more likely to compare themselves with people

they deem similar to themselves, rather than to dissimilar others (Festinger, 1954). People on Instagram are perceived to be peers, and therefore relevant comparison targets, can come off as relatable and real. However, with the prevalence of beauty filters, people are more likely to compare their real selves with the idealized versions of their peers (Fardouly & Holland, 2018). This comparison could be considered upward social comparison disguised as peer comparison and could therefore also result in feelings of inadequacy. Cultural norms for appearance implying that these standards are attainable, relevant, and realistic, could contribute to women feeling their appearance is lacking (Calogero, Boroughs, & Thompson, 2007; Strahan et al., 2006).

A true solution?

Critically thinking about the contents of media, understanding that what is portrayed may not represent reality and portrays certain values and perspectives, is proposed to protect against the negative effects associated with exposure to idealized images (McLean et al., 2016a). This tactic, known as media literacy, involves recognizing that images in media can be manipulated to achieve desired effects and are thus not necessarily realistic (McLean et al., 2016a). Policymakers and governments in several countries have proposed the use of disclaimer labels on idealized images in media, which inform viewers that an image has been digitally altered. Israel, France, and Norway have already passed laws requiring advertisers to disclose when images have been digitally altered, and the UK might soon be following suit with a similar law (Chiu, 2021; Minsberg, 2012; Noble, 2021). The underlying assumption of such ideas is that increasing people's awareness about the alterations made to an image will result in people engaging in upward comparison less, and by extension experiencing fewer negative consequences after being exposed to them.

The efficacy of the protective role of disclaimer labels in traditional media has been examined in studies, with mixed findings. Few studies found evidence for the protective relation of disclaimers to the negative effects associated with exposure to idealized imagery (Rollero, 2015; Slater et al., 2012). However, a more recent body of research has found disclaimer labels did not effectively reduce the negative effects of idealized images on well-being (Ata, Thompson, & Small, 2013; Bury, Tiggemann, & Slater, 2016, 2017; Fardouly & Holland, 2018; Tiggemann & Brown, 2018). These findings suggest that legislation regarding disclaimers might not be an effective endeavor, as disclaimer labels might not have the desired effect.

Current research and hypotheses

Ni Shuilleabhain, Rich and Fullagar (2021) offer a possible explanation for the lack of support found for disclaimer labels as a solution to the negative effects of idealized images, arguing that the ability to criticize media images might not automatically result in the ability to resist the desire to achieve the depicted beauty ideals. Regardless of being aware of alterations made to an image, the image portrays an appearance that is deemed ideal and attractive, thus women might continue to compare their appearance to that of the women in the image (Paraskeva, Lewis-Smith, & Diedrichs, 2017). Additionally, disclaimer labels may not reduce social comparison processes, as social media exists of user-generated content that suggests a more personal relationship than traditional media (Bury et al., 2016). Peers on social media might therefore still be considered relevant comparison targets even after alterations are disclosed (Fardouly & Vartanian, 2016). In addition, disclaimer labels might draw more attention to idealized images and therefore trigger more social comparison, although this was only suggested in one study (Bury, Tiggemann, & Slater, 2014). In sum, the existing body of research suggests that disclaimer labels might be ineffective in reducing body image issues. The current research builds on research previously conducted by Ata et al. (2013), Bury et al. (2016) (2017), Fardouly and Holland (2018), Tiggemann and Brown (2018), and examines the effect of disclaimer labels on internalization of beauty ideals in women. While the majority of the aforementioned studies have focused on disclaimer labels in traditional media, this study will focus on disclaimer labels in social media. Additionally, this study will solely focus on women, since women have traditionally reported more body image issues after exposure to idealized images (Grabe et al., 2008). Moreover, the target group for this study will consist of women between the ages of 18-35 years old. This age demographic reflects over 90% of Instagram users, meaning this group is habitually exposed to idealized imagery (Smith, 2014). In this study, women's internalization of beauty ideals will be examined after exposure to images conform to current beauty ideals with- or without a disclaimer label.

Furthermore, it is likely participants will vary in the importance they ascribe to beauty ideals. The likelihood of engaging in social comparison processes is thought to increase more, the more someone values beauty ideals (Fardouly, Diedrichs, Vartanian, & Halliwell, 2015). The perceived importance of beauty ideals is therefore expected to covary with their internalization. Since the perceived importance put on beauty ideals could explain part of the variance if a relationship is found between internalization and the

presence/ absence of disclaimer labels, "perceived importance of beauty ideals" will be used as a covariate. The following exploratory hypotheses can be formulated:

- 1a. The presence of disclaimer labels on idealized images has no effect on the internalization of beauty ideals in women.
- 1b. The perceived importance of beauty ideals will affect the internalization of beauty ideals as a covariate.

Lastly, an exploratory analysis will be conducted on the difference in internalization of beauty ideals between participants aged 18-24 vs. participants aged 25-35. The former can be classified as 'digital natives' who were introduced to social media in their formative adolescent years. In contrast, people over the age of 25 have adapted to a life with social media after they reached adulthood (Dimock, 2019). Such generational differences could translate into cultural differences: as culture changes the youngest members of society are socialized with new ideas (Twenge, Campbell, & Freeman, 2012). Adolescents are more likely to undergo identity formation and are therefore more likely to engage in upward social comparisons (Arnett, 2011). A higher tendency to engage in upward social comparison with idealized imagery is in turn proposed to be associated with higher internalization of beauty ideals. The greater appreciation for the role media images plays in the assessments adolescents make on their own bodies could indicate that women 18-24 will internalize beauty ideals portrayed on Instagram more than women aged 25-35. This study aims to explore whether generational differences exist in the internalization of beauty ideals as a result of more upward comparisons during formative years:

2. Women aged 18-24 will internalize beauty ideals more than women aged 25-35 when exposed to idealized images.

Methods

Participants

For the expected effect of p < .05 for ANCOVA, an a priori power analysis using G*Power (v. 3.1) indicated that 90 participants were needed to obtain a power of 0.8 and a medium effect size of f = .3 (Cohen, 1988). Participants were 100 women who were recruited through course credit from a subject pool of Utrecht University. Alternatively, participants were approached via social media through a convenience sample. Data from 9 participants were not analyzed because these individuals failed to complete the entire study, leaving a sample of 91 participants. Participants were women ranging in age from 18 to 33 years old

(M=22.76, SD=2.88), in accordance with the exclusion criteria which prohibited males of any age and females under 18 or over 35 from participation. Participants varied in highest educational attainment, which ranged from high school to academic Master's degree. The most common was an academic Bachelor's degree (N=35), see figure 1 for the distribution of participant's educational level. All participants reported using some form of social media at some point in their life, with Instagram reportedly being the most popular, as 89 participants reported currently being active on the platform, see figure 2 for the distribution of participant's social media usage.

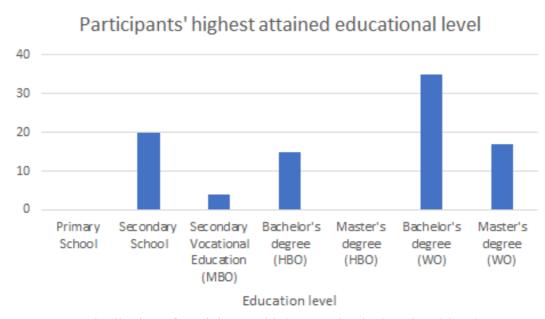


Figure 1. Distribution of participants' highest attained educational level.

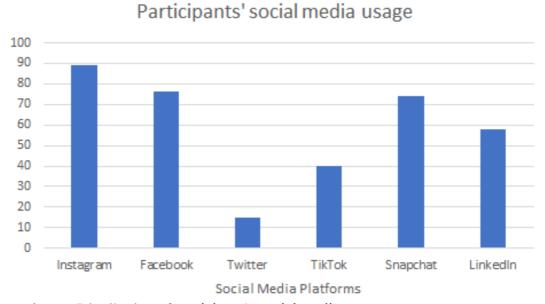


Figure 2. Distribution of participant's social media use.

Procedure. Participants were invited to take part in a study in which they would indicate their opinions on, and attitudes towards beauty ideals and social media usage. Participants were asked to consent to participation prior to the experiment (see Appendix 1 for the informed consent letter). Participants were asked to provide demographical information and completed the Fear of Negative Appearance Evaluation Scale (FNAES). Additionally, they were asked to fill out the Selfie Manipulation Scale, but since this questionnaire is beyond the scope of this research it will not be discussed further. After, they were presented with instructions to view images; participants were asked to carefully look at images of women that are typically found on social media. Unbeknownst to the participants, these were not depictions of real women, but AI-generated images derived from https://thispersondoesnotexist.com that were subsequently edited with beauty filters. Participants were then randomly assigned to one of two conditions: digitally enhanced images without a disclaimer label, or digitally enhanced images with a disclaimer label, see figure 3 for an example of the stimuli in the two conditions.

As can be seen in figure 3, the disclaimer label was a sign with a pencil and paintbrush accompanied by text that read "this image has been digitally altered" surrounded by a bright red border to capture attention. The disclaimer label was placed in the bottom left corner of the image using Photoshop. For social comparison processes to occur, it would be necessary for participants to perceive the stimuli as relevant comparison targets (Festinger, 1954). For this reason, both conditions consisted of 12 AI-generated images that were selected to look

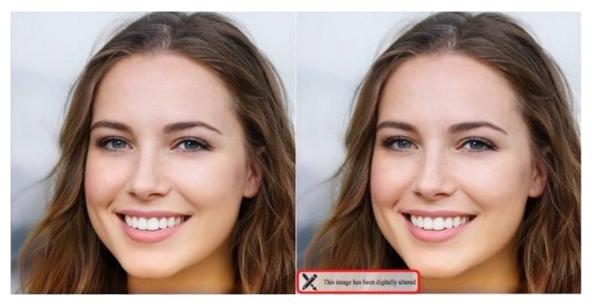


Figure 3. Example of stimuli in the condition without disclaimer label (left) and the condition with disclaimer label (right).

racially diverse. The stimuli were chosen to resemble Caucasian, Asian, Middle Eastern and Black/ mixed ethnical backgrounds to ensure inclusivity s.. Images were subsequently altered to be more conform to current beauty ideals using the 'FaceApp' editing application. Alterations included brightening and smoothening of the skin, removing fine lines and wrinkles, enhancing lip size, reducing nose size, reducing the appearance of undereye bags and a more pronounced jawline. The same altering features were used on all 12 images to ensure consistency. The resulting stimuli can be viewed in Appendix 2. After being exposed to the idealized images with or without disclaimer, participants filled out the fourth edition of the Socio-cultural Attitudes Towards Appearance Questionnaire (SATAQ-4). Finally, participants were debriefed and informed of the goals of the study.

The study was conducted in agreement with the Declaration of Helsinki, and it was approved by the Faculty Ethics Review Board of Utrecht University.

Measures

Demographics

Participants reported gender identity, age, and level of highest achieved education.

Social media usage

Participants reported whether they had used social media during their lifespan and indicated which social media platforms they were active on.

Perceived importance of beauty ideals

Participants completed the Fear of Negative Appearance Evaluation Scale (FNAES), see Appendix 3, inquiring about their perceived amount of fear of judgments from others based on their looks, to assess their perceived importance of beauty ideals (Thomas et al., 1998 cited in Lundgren et al., 2004). This questionnaire consists of 6 items, such as "I am concerned about what other people will think of my appearance", with ratings made on a 1 (*Not at all*) to 5 (*Extremely*) Likert scale ($\alpha = .94$).

Internalization of beauty ideals

To assess the internalization of beauty ideals, participants completed The Sociocultural Attitudes towards Appearance Questionnaire-4 (SATAQ-4) (Schaefer et al., 2015). This 10-item questionnaire indicates the desire and time spent to adhere to beauty ideals ($\alpha = .89$),

through items such as "I want my body to look very thin." from 1 (*Definitely disagree*) to 5 (*Definitely agree*). See Appendix 4.

Data analysis

Data were analyzed using the Statistical Package for the Social Science software (SPSS; v.28.0.1.0). Data screening and preparation were performed.

Results

Internalization of beauty ideals: effect of disclaimer labels

A one-way analysis of covariance (ANCOVA) was conducted to compare the internalization of beauty ideals of women aged 18-35 exposed to idealized images with or without a disclaimer label. A covariate was included to partial out the effects of the perceived importance put on beauty ideals by participants.

Examination of the Shapiro-Wilk statistics, W = .969, p = .247 for no label condition and W = .983, p = .736 for the labelled condition, and histograms for the conditions indicated that the ANCOVA assumptions of normality were supported. Scatterplots indicated that the relationship between the covariate (perceived importance of beauty ideals) and the dependent variable (internalization of beauty ideals) was linear. Finally, the assumption of homogeneity of regression slopes was supported by the absence of a significant relationship between the covariate and the dependent variable, F(1, 87) = 0.478, p = .491. However, a significant Levene's test, F(1, 89) = 3.323, p = .072 violated the assumption of homogeneity of variance. Since the group sizes of the conditions were near equal (N = 46 and N = 45), the F statistic can be assumed to be robust (Allen, Bennett, & Heritage, 2014). Therefore, ANCOVA was conducted despite the violation.

The ANCOVA indicated that the perceived importance of beauty ideals was significantly related to the internalization of beauty ideals, F(1, 88) = 25.137, p = <.001, partial $\eta^2 = .222$, indicating perceived importance of beauty ideals was a fitting covariate in this model. An independent sample t-test revealed no significant effect of disclaimers on the internalization of beauty ideals, t(89) = 0.171, p = .865, CI [-3.378 – 4.012]. Moreover, even after accounting for the effects of the covariate, there was no statistically significant effect of the presence of a disclaimer label on the internalization of beauty ideals F(1, 88) = 0.084, p = .773, partial $\eta^2 = .001$. These findings provide support for the first hypothesis, as participants exposed to idealized images with a disclaimer label (M = 26.717, SD = 9.699) did not internalize beauty

ideals more than those exposed to idealized images with a disclaimer label (M = 26.400, SD =7.933).

Furthermore, a simple regression analysis indicated that participants' perceived importance of beauty ideals predicted their internalization of beauty ideals, $R^2 = .222$, F(1, 89)= 25.352, p = <.001. Means and standard deviations of each condition are reported in Table 1.

Internalization of beauty ideals: Age cohort

An independent samples t-test was conducted to compare the average internalization of beauty ideals reported by participants aged 18-24 (N = 77) to the average internalization reported by participants over 25 (N = 14).

Shapiro-Wilk test conducted for the prior ANCOVA were not significant, indicating that the assumption of normality was not violated. Levene's test was also non-significant (p =.219), thus equal variances can be assumed. Participants aged 18-24 (M = 26.870, SD = 8.554) reported internalization levels somewhat lower than participants aged 25-35 (M = 24.857, SD= 10.362), this difference was revealed to not be significant, t(89) = 0.784, p = .435, CI [-3.091 - 7.117]. These findings indicate that participants under 25 did not internalize beauty ideals more than participants belonging to the 25-35 age cohort, contrary to hypothesis 2. Further analyses were conducted to gather more insight into these findings.

A two-way ANCOVA was conducted on the internalization of beauty ideals, with participant age cohort (18-24 and 25-35) and type of image (with- and without disclaimer label) as the between-subjects factors and perceived importance of beauty ideals as a covariate.

Table 1. Means and Standard Deviations of Internalization of beauty ideals.

| Dependent measure | Cond | | |
|----------------------------------|-----------------|-----------------|-----------------|
| Internalization of beauty ideals | No label | Label | Total |
| Total | 26.717 (9.699) | 26.400 (7.933) | 26.560 (8.822) |
| (N=91) | (N = 46) | (N = 45) | (N = 91) |
| Age cohort 18-24 | 27.225 (9.542) | 26.487 (7.452) | 26.870 (8.554) |
| (N = 91) | (N = 77) | (N = 14) | (N = 91) |
| Age cohort 25-35 | 23.333 (10.985) | 26.000 (10.474) | 24.857 (10.362) |
| (N=91) | (N=6) | (N=8) | (N = 91) |

Assumptions of normality was supported by a non-significant Shapiro-Wilk test, with W = .988, p = .688 for participants aged 18-24 and W = .920, p = .233 for participants 25 and over. The assumption of linearity had been established in the earlier conducted ANCOVA. The assumption of homogeneity of variance was supported by a non-significant Levene's test, F(3, 87) = 1.309, p = .277. However, the assumption of homogeneity of regression slopes was violated, as indicated by a significant relationship between the covariate and the independent variable 'participant age cohort', F(1, 85) = 6.533, p = .012. This indicates that the relationship between the internalization of beauty ideals and the perceived importance of beauty ideals differs across age groups, meaning the overall regression model might be inaccurate. Analysis was proceeded, keeping this in mind.

As expected based on the previously conducted ANCOVA's, analyses yielded no significant main effect of type of image F(1, 86) = 0.018, p = .895, partial $\eta^2 = <.001$, and no significant main effect of age cohort F(1, 86) = 0.874, p = .353, partial $\eta^2 = .010$. Furthermore, no significant interaction effect was found between type of image and participants' age group, F(1, 86) = 0.180, p = .673, partial $\eta^2 = .002$, indicating that the internalization participants experience after exposure to a type of image is not dependent on their age.

Interestingly, although the differences were not significant, participants 25 and over did internalize beauty ideals more in the labeled condition (M = 26.00, SD = 10.47) than in the condition without a disclaimer label (M = 23.33, SD = 10.99), see figure 4. This was different from the participants under 25 who internalized beauty ideals more in the condition without a label (M = 27.22, SD = 9.54) than in the labeled condition (M = 26.49, SD = 7.45), although not significantly so either. This observation could explain the violation of the homogeneity of regression slopes, indicating that age cohorts might interpret disclaimer labels differently. However, conclusions drawn from this analysis should be cautious since these observations are not significantly different and the violation of the homogeneity of regression slopes indicates the tested model is not a good fit. Means and standard deviations of each age cohort per condition are reported in Table 1.

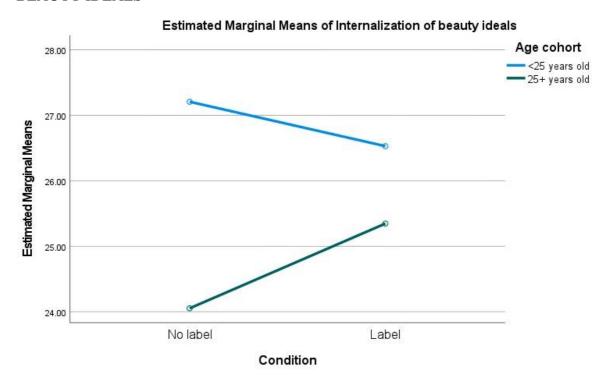


Figure 4. Different age cohorts internalize beauty ideals differently based on the presence of a disclaimer label. *Covariate perceived importance of beauty ideals is evaluated at 16.550.

Discussion

The aim of the present study was to examine whether disclaimer labels on filtered images on social media could reduce the internalization of beauty ideals in women. Findings indicated that there was no difference in the internalization of beauty ideals based on the presence of a disclaimer label. The lack of a protective effect of disclaimer labels supports previous findings (Ata, Thompson, & Small, 2013; Bury, Tiggemann, & Slater, 2016, 2017; Fardouly & Holland, 2018; Tiggemann & Brown, 2018). Additionally, the degree to which women internalized beauty ideals could be predicted by their perceived importance of beauty ideals. However, the findings suggest that the presence of disclaimer labels on idealized images does not affect the internalization of beauty ideals even after accounting for individual differences regarding the perceived importance of beauty ideals. Contrary to the predictions made, there was no main effect of age on the internalization of beauty ideals. Women aged 18-24 only marginally internalized beauty ideals more than women aged 25-35. An interaction effect between participants' age cohort and the presence/ absence of a disclaimer label also did not occur. These findings suggest women of different ages do not differ in their processing of disclaimer labels on idealized imagery. Interestingly, a marginal difference in the way in which women reacted to the disclaimer labels hints that women of different ages do differ in their

internalization of beauty ideals. Women in the older age cohort seemingly internalized beauty ideals more in the presence of a disclaimer label, as opposed to the younger women who marginally internalized beauty ideals more when a disclaimer label was absent. There have been studies that found the presence of a disclaimer label triggered deeper processing of the image, with participants trying to figure out which body parts had been altered (Bury, Tiggemann, & Slater, 2014; Tiggemann et al., 2013). This increased attention resulted in more social comparison and therefore more internalization of beauty ideals. This, however, does not explain why only women in the older age cohort would have experienced this. Although the sample size of women aged 25-35 was sufficient for the conducted analyses, this sample size is relatively small and unequal to the sample size of women aged 18-24. Representativeness of the sample for the population is therefore not ensured, which could have resulted in underestimated effects of age in this study (Field, 2018). Further research is required to clarify the role of age on the internalization of beauty ideals.

Although support was not found for all hypotheses, the current research does provide support for the general idea that disclaimer labels on idealized images do not sufficiently reduce the internalization of beauty ideals and thus contributes to research that has found the same (Ata, Thompson, & Small, 2013; Bury, Tiggemann, & Slater, 2016, 2017; Fardouly & Holland, 2018; Tiggemann & Brown, 2018).

Strengths, limitations, and directions for future research

One major strength of this study was the design of the stimuli, which incorporated characteristics associated with different ethnicities to stimulate inclusivity. This increased the likelihood of participants experiencing similarity, and therefore social comparison processes, when exposed to the stimuli (Festinger, 1954). This was increased by designing the stimuli to resemble content posted by peers on social media, rather than celebrities, models, or influencers.

Nevertheless, findings from this study should be interpreted with consideration of several limitations. As previously mentioned, the small sample size of women aged 25-35 prevents from drawing any decisive conclusions from the findings. As research on internalization of beauty ideals is mostly conducted on adolescents and young adults, future research will have to focus more on mature women to clarify the effect of age on the internalization of beauty ideals.

This study did not explore participants' prior knowledge of media literacy. Research by McLean, Paxton and Wertheim (2016a) suggested that people with high media literacy skills

evaluated people depicted in altered images to be unsuitable targets for comparison, resulting in better body image than people with low media literacy skills. This study increased the media literacy knowledge of participants in the disclaimer label condition and found no effect on internalization of beauty ideals. However, the brief exposure to disclaimer labels might not have triggered the complex thinking necessary to protect oneself from the negative effects of exposure to idealized images (Ata et al., 2013). The study did not account for participants' individual knowledge of media literacy prior to participation. Similarly, as participants of this study belong to the main target group for Instagram, where idealized images are of frequent occurrence, it is likely they had been exposed to idealized images prior to participation. Research found that as the time women spent on social media increased, women engaged more in upward social comparison processes resulting in more negative body image (Cohen, Newton-John, & Slater, 2017; Fardouley & Vartanian, 2015; Hogue & Mills, 2018). The internalization of beauty ideals might therefore increase as people spent more time on social media, influencing the results of this study. Future research could investigate the roles of prior knowledge of media literacy and time spent on social media on the internalization of beauty ideals, to identify the true effect of disclaimer label when individual differences like this are accounted for.

Lastly, a point can be made towards the interface of the stimuli. Although the stimuli were created to be similar to peer-generated content on social media, a distinctive feature of social media compared to traditional media is the interactive element. Social media allows its users to interact with their posts or those of others using 'likes' and 'comments'. While participants in this study were told that the images were derived from Instagram, this interactive element was missing. It is unknown how these features impact the social comparison processes of women. Future research could subject participants to the stimuli using an interface more similar to social media platforms that incorporates these elements of social media.

Conclusion

This study examined the impact of disclaimer labels, a specific form of media literacy, on the internalization of beauty ideals. Disclaimer labels as a protective measure against negative effects associated with exposure to idealized imagery are frequently discussed in media. In recent years legislation requiring the use of disclaimer labels on idealized images has even passed in several countries. However, this study found no support for the theory that disclaimer labels can reduce the internalization of beauty ideals and are therefore unlikely to reduce the negative effects associated with exposure to idealized images. This may be due to a number of

reasons, including the idea that disclaimer labels do not sufficiently reduce the perception of the portrayed appearance to be a relevant comparison target. This study found the perceived importance put on beauty ideals could predict the experiences level of internalization but found no support for the assumptions women of different ages would differ in their internalization of beauty ideals. Further research is needed to identify factors that influence the internalization of beauty ideals. Taken together, the results of this study suggest future attempts to reduce the negative effects of exposure to idealized images by women may be better placed on other ideas, like reducing the prevalence of digital altering of images or deepening media literacy knowledge.

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Appendices

Appendix 1. Information letter and informed consent.

Information letter

We would like to ask you to help us with our research for our master thesis for the master programme: Social Health and Organizational Psychology. The study is designed to learn more about people's habits on social media. It is being conducted by master students of Utrecht University, under guidance of Francesca di Cicco. You must between the ages of 18 and 35 years old to participate.

Below is a description of the research procedures and an explanation of your rights as a research participant. In accordance with the ethics code of the American Psychology Association (APA), you are asked to read this information carefully.

If you agree to participate in this study, you will be presented with social media content and asked to indicate your preferences and attitudes towards social media and yourself. You will additionally be asked to fill in basic demographic information. The study contains about 25 questions and participation will take approximately 10-15 minutes. When you complete the study, a thorough written explanation of it will be provided.

There are no known risks associated with your participation in this research beyond those of everyday life.

Taking part in this study is voluntary. You have the right to skip or not answer any questions you prefer not to answer. Confidentiality of your research records will be strictly maintained by assigning unique, confidential identification codes to your responses. The data from the study will be kept until at least 5 years after publication, as recommended by the American Psychological Association, and then destroyed by deletion of computer data. Anonymous participant data may be shared with other researchers for scientific purposes.

If there is anything about the study or taking part in it that is unclear or that you do not understand, or if you have questions or wish to report a research-related problem, you may contact the principal investigator, Francesca di Cicco at f.dicicco@uu.nl. For any complaints about this research, you can contact the commission of complaints: klachtenfunctionaris-fetcsocwet@uu.nl.

We thank you in advance for participating.

Kind regards, Quinty Mulier (6011624) and Marie Claire Bakker (13066005)

Informed consent form

*I hereby state that I have been fully informed about the nature and procedures of the study and the manner in which the data of this study will be handled.

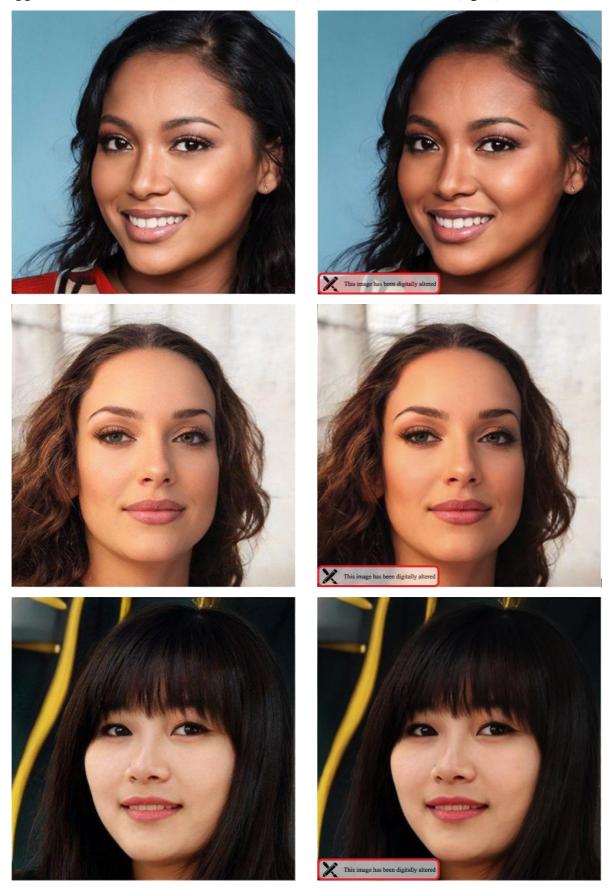
*I certify that I am 18 - 35 years old and I agree to participate in this research project.

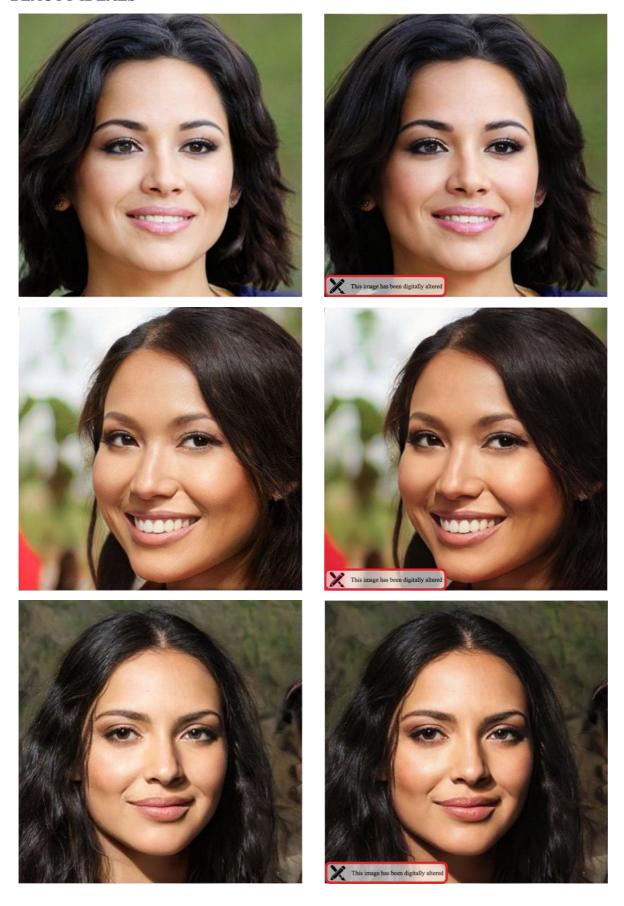
*I understand that my participation is voluntary and I may withdraw at any time without giving reason.

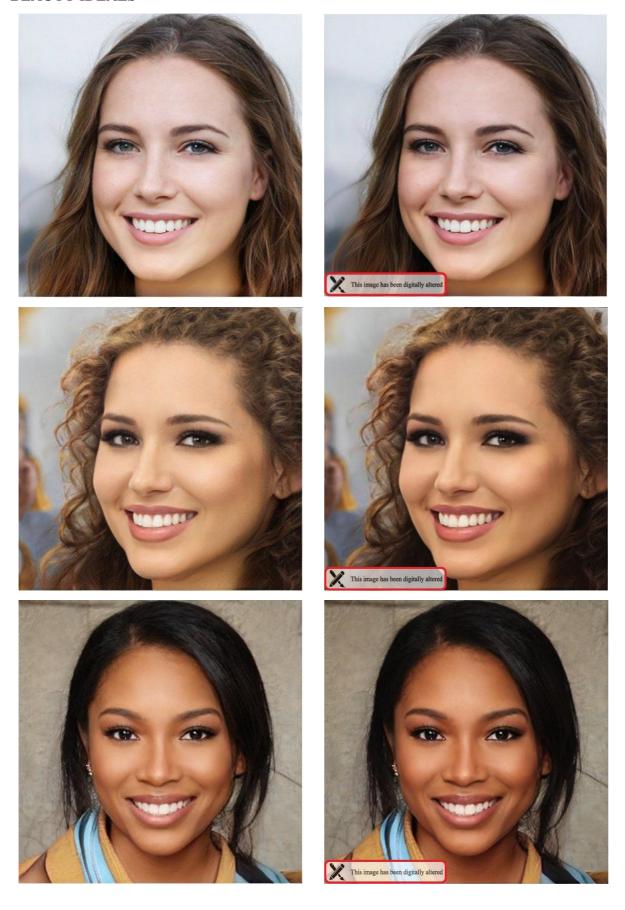
I agree to participate

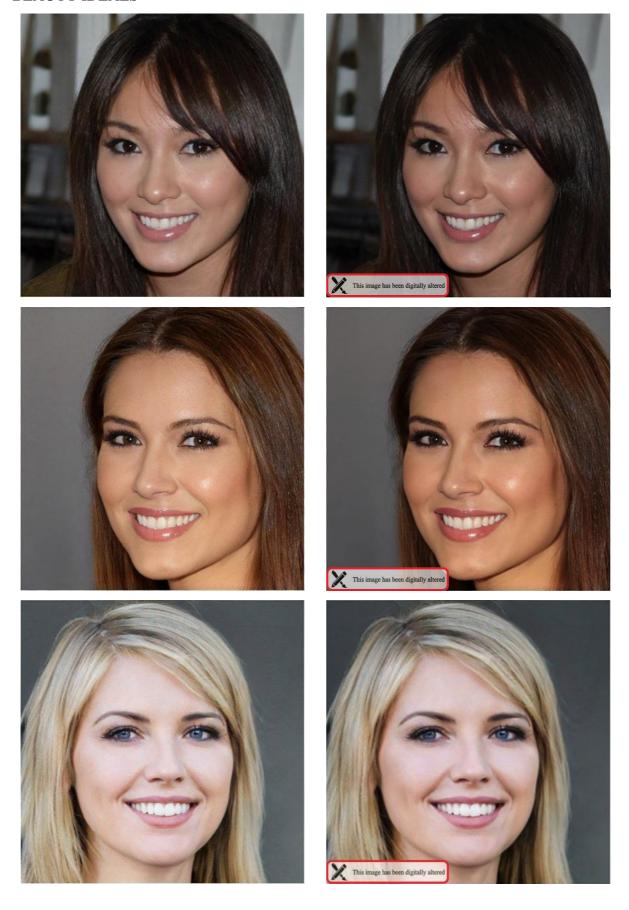
I do not agree to participate (this will terminate the study)

Appendix 2. Stimuli set (no label condition (left) and label condition (right)).









Appendix 3. The Fear of Negative Appearance Evaluation Scale (FNAES)

Using the following scale please select a number that comes closest to how you feel:

| Not At All | Slightly | Moderately | Very | | | Extremely | | |
|---|----------------------|----------------------|-----------|---|---|-----------|---|---|
| 1 | 2 | 3 | 4 | | | 5 | | |
| | | | | | | | | |
| 1. I am concerned a | about what other peo | ople think of my app | pearance. | 1 | 2 | 3 | 4 | 5 |
| 2. It bothers me if I know someone is judging my physical shape. | | | 1 | 2 | 3 | 4 | 5 | |
| 3. I worry that people will find fault with the way I look. | | | 1 | 2 | 3 | 4 | 5 | |
| 4. When I meet new people, I wonder what they think about my appearance. | | | 1 | 2 | 3 | 4 | 5 | |
| 5. I am afraid other people will notice my physical flaws. | | | 1 | 2 | 3 | 4 | 5 | |
| 6. I think that other people's opinions of my appearance are too important to me. | | | 1 | 2 | 3 | 4 | 5 | |

Appendix 4. Sociocultural Attitudes Towards Appearance Questionnaire -4 (SATAQ-4)

Sociocultural Attitudes Towards Appearance Questionnaire – 4

Directions: Please read each of the following items carefully and indicate the number that best reflects your agreement with the statement.

Definitely Disagree = 1 Mostly Disagree = 2 Neither Agree Nor Disagree = 3 Mostly Agree = 4 Definitely Agree = 5

| | Definitely Disagree | | | | Definitely Agree |
|---|------------------------|---|---|---|---------------------|
| 1. It is important for me to look athletic. | 1 | 2 | 3 | 4 | 5 |
| 2. I think a lot about looking muscular. | 1 | 2 | 3 | 4 | 5 |
| 3. I want my body to look very thin. | 1 | 2 | 3 | 4 | 5 |
| 4. I want my body to look like it has little fat | . 1 | 2 | 3 | 4 | 5 |
| 5. I think a lot about looking thin. | 1 | 2 | 3 | 4 | 5 |
| 6. I spend a lot of time doing things to look more athletic. | 1 | 2 | 3 | 4 | 5 |
| 7. I think a lot about looking athletic. | 1 | 2 | 3 | 4 | 5 |
| 8. I want my body to look very lean. | 1 | 2 | 3 | 4 | 5 |
| 9. I think a lot about having very little body fat. | 1 | 2 | 3 | 4 | 5 |
| 10. I spend a lot of time doing things to look more muscular. | 1 | 2 | 3 | 4 | 5 |