

**Enhanced self-presentation in online dating: the mediating role of authentic and ideal self-presentation in the relationships of self-esteem and body image with self-enhancement**

A survey study into the role of self-esteem and body image in visual self-presentation on online dating apps, and how it relates to enhanced self-presentation

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### **Abstract**

This study aimed to investigate whether there is a relationship between self-esteem and body image with self-enhancement, and whether this relationship is mediated via authentic and/or ideal self-presentation within the context of online dating through mobile applications. However, little research has focused on whether the dispositional level of self-esteem and body image may motivate the way in which people self-present on their online dating profile

The goal of this study was to investigate whether the level of self-esteem and/or body image was related to the type of self-presentation, authentic and/or ideal, and whether this increased or decreased likelihood of engaging in self-enhancement. This was investigated through a survey study among 140 online daters. The survey measured the self-reported level of self-esteem and body image, self-presentation (ideal and authentic), and the level of self-enhancement through photo manipulation (e.g. removing blemishes and/or pimples). Results show no overall mediating effect of both authentic and ideal self-presentation on the relationship of self-esteem and body image with self-enhancement, but it was found that self-esteem related positively to authentic self-presentation and negatively to ideal self-presentation. Body image was found to relate negatively to ideal self-presentation. This implies that those with higher levels of self-esteem are more likely to self-present themselves more authentically on online dating profiles, and those who score lower on self-esteem and body image are more likely to self-present more ideally on their online dating profiles.

*Keywords:* self-esteem, body image, ideal self-presentation, authentic self-presentation, online dating profile, self-enhancement, photo manipulation

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## 2. Introduction

Over the years, visual content such as photos and videos has become a central aspect of social networking sites (SNS), enabling users to present themselves and their lives by sharing such visual content on these platforms. With self-presentation people generally attempt to create a positive impression on their audience (Goffman, 1959; Schlenker & Pontari, 1996). As these photos and videos often focus on physical appearance (Fox & Vendemia, 2016), the pressure and importance of one's appearance in online self-presentation increases (Cohen et al., 2017). The affordances of modern technology allow for greater control over the way someone appears in photos before sharing these on SNS such as Instagram or online dating apps (Hancock & Toma, 2009). For example, users can employ good lighting to highlight parts of their appearance they like, choose flattering angles to leave out certain facial and/or bodily features they dislike, and even adjust the shape of the body by making body parts look larger or smaller (Tiggeman & Miller, 2010).

Such engagement with appearance-focused, online environments was found to have detrimental effects on the perceived image of one's own body, and self-esteem (e.g., Cohen et al., 2017; De Vries et al., 2014; Fardouly & Vartanian, 2016; Holland & Tiggeman, 2016), which could lead to, for example, depression or eating disorders (Verplanken & Tangelder, 2009). However, most of these studies focused on the effect of being exposed to the self-presentations of others on self-esteem and/or body image. Meanwhile, the act of self-presenting on SNS, such as uploading selfies, also affects the way people feel about themselves and their bodies (Mills, 2018). Bij de Vaate et al. (2020) reviewed the limited amount of research that has been done on the effects that the act of self-presentation on SNS may have on one's own body image. They stated no positive results were found of the effect of online self-presentation on one's perceived

body image and self-esteem, meaning that online self-presentation often led to worsened feelings about one's own body and a decreased self-esteem. For instance, research shows that uploading selfies, both untouched and retouched, made women feel more anxious, less confident, and less attractive compared to a group that was asked to read a neutral, non-appearance related article (Mills, 2018). This shows that not only exposure to self-presentation by others negatively affects body image and self-esteem. This same effect can be a result of participating in the act of self-presentation, even when offered the opportunity to enhance one's self-presentation to their liking.

Previous research has looked into the act of online self-presentation and its effect on self-esteem and body image, but it is also suggested that self-esteem and body image could, in turn, motivate online self-presentation (Bij de Vaate, 2020; Mills, 2018; Veldhuis et al., 2020). Therefore, this relationship between self-presentation and self-esteem and/or body image may be bidirectional and self-perpetuating (Mills, 2018). Following this reasoning, a low body image or self-esteem could lead to a certain way of self-presentation on SNS, such as online dating platforms, that further diminishes the level of self-esteem and/or body image. Following this reasoning, self-presentation involving greater levels of self-enhancement was found to lead to a more negative body image (Mankotia & Wesley, 2020). However, actual research investigating this direction of the relationship investigating the role that self-esteem and body image play in self-presentation, is lacking.

This research aims to fill this gap in the literature by looking at the relationship of self-esteem and body image with self-presentation in the context of online dating apps, because these apps are an online environment in which these three concepts come together. Online daters know that their self-presentation is going to be judged based on their appearance (Strubel & Petrie,

2017). To attract potential romantic interests, users attempt to present themselves through photos in an ideal, yet realistic manner (Ellison et al., 2006). In order to achieve this balance, users could select photos that reflect things they like about themselves, and also use self-enhancement through photo editing techniques to present themselves more favorably to their audience (Peng, 2020). However, the more a photo is enhanced through editing, the less authentic it becomes. On the other hand, the more a photo is enhanced through editing, the more it could reflect an ideal version of the self. Ideal self-presentation was found to result from low self-esteem, whereas authentic self-presentation was consistently, positively related to high self-esteem (Twomey & O'Reilly, 2017). This suggests that people who feel insecure about themselves and/or their bodies, present themselves less authentically and more ideally. In turn, this idealized self-presentation may then have a greater level of self-enhancement as a result. In the same trail of thought, those with higher self-esteem may engage in more authentic self-presentation, which then leads to less self-enhancement.

Enhanced self-presentation through photo editing could be found to lead to a more negative body image and self-esteem (Liao, 2021; Mankotia & Wesley, 2020). Long term effects of low levels of body image and self-esteem include eating disorders, body disturbance, anxiety, depression, and loneliness (Cohen et al., 2018; Leary et al., 1995; McLean et al., 2016).

### **3. Theoretical Framework**

Self-esteem is a broad, overarching concept regarding the way people affectively and cognitively feel about themselves (Blascovich & Tomaka, 1991), whereas body image is a similar, more specific concept regarding the way people feel about their bodies (Cash et al., 2002). Having high self-esteem means that someone feels they are worthy as a person and feel as if others view them in a positive light. On the contrary, low self-esteem means that someone does

feel inadequate and as if they are not as worthy as others (Blascovich & Tomaka, 1991).

Whereas self-esteem relates to a more general perception people may have of themselves, body image pertains to the perception someone has of their body, and their attitude towards it (Cash et al., 2002). Having a negative body thus implies that someone has negative feelings towards the way their body appears. Although body image and self-esteem are different concepts, Audrey et al. (2020) found that body image is highly correlated with self-esteem, as self-esteem is a more general concept overarching different self-evaluations, of which body image is one aspect. Both concepts have been investigated in relation to the way in which people self-present themselves online.

Self-presentation is seen as an essential part of interaction and relationship forming, and can be enacted through disclosing and/or concealing information about oneself towards others (Goffman, 1959). The goal of self-presentation is to create and manage a favorable impression of oneself on others. Although the concept of self-presentation was initially developed in a face-to-face context, it holds surprisingly well in today's, more visual, online world (Walther & Whitty, 2021). This is because many SNSs offer platforms centered around creating a favorable impression through self-presentation to an audience, who have now moved online (Bij de Vaate et al., 2020). Such platforms, like online dating apps, often include self-presentational tools like online profiles (Ellison et al., 2006).

Online daters have to engage in self-presentation via an online dating profile in order to get in touch with potential sexual and/or romantic partners. The daters self-present through carefully selecting information, such as descriptions and photos, to include and/or exclude on their dating profile (Jänkälä et al., 2019). The information presented on the profile is used to get in touch with potential romantic and/or sexual partners. On most online dating apps, a matching

process precedes a potential match (Holtzhausen et al., 2020). During this process, an online dater's profile is presented to a potential partner, who then indicates whether they want to get in touch with this person or not. Thus, the way online daters self-present on their online dating profile directly influences the number of matches, creating more opportunities to get in touch with potential partners. This highlights that, also in an online context, self-presentation is a key factor in interaction and relationship forming, although self-presentation was initially described to fulfill this role in face-to-face situations (Goffman, 1959).

However, the main difference between online and offline self-presentation is that people have greater control over the way they present themselves in an online context, as opposed to an offline context (Walther, 1996). The increased control is allowed by the affordances of computer-mediated-communication (CMC). Although this increased control was initially described regarding text-based CMC (Walther, 1996), it has also come to apply to more recent, visual affordances of CMC (Ellison et al., 2006; Walther & Whitty, 2021). Control over self-presentation is increased within an online context, because the number of cues used to self-present or form an impression of others, is reduced (Walther, 1996). Additionally, the editability of content on CMC offers the possibility to first select, adjust and censor information before engaging in self-presentation online, which is not possible in an offline context (Walther, 1996). For example, users could choose what photos are shared on their online profiles, and which ones are not. Then, users also have control over what is depicted and what is left out in the photos that are uploaded. For example, one could deliberately cut off parts of a photo using a cropping tool, an affordance of CMC, because the thing or person that is depicted may interfere with the impression they would like to give off to their online audience. Controlling which aspects of

oneself are shared, and which are not while self-presenting online is called selective self-presentation (Kim & Baek, 2014; Walther, 1996).

Selective self-presentation is one of multiple ways in which people could engage in ideal self-presentation on online platforms, such as online dating apps. Ideal self-presentation means that people self-present in such a manner that it reflects a version of themselves that is in line with how they would like to be perceived by others, an enhanced presentation of the self (Twomey & O'Reilly, 2017). For example, in addition to selective self-presentation, people could engage in ideal self-presentation through emphasizing and bolstering positive aspects about the self, while leaving negative traits unmentioned. Additionally, the asynchronous nature of CMC enables an online dating profile to be created at another point in time than it might be seen by others. This allows online daters to include past qualities, current qualities, and qualities they strive to possess in the future (Ellison et al., 2006). Therefore, users could report qualities they do not possess at that moment in time. This suits the analytic lens of *profile as promise* that Ellison et al. (2011) created to look at online dating profiles. This lens posits that users present themselves in a way they could be (ideal), rather than the way they actually are right at that moment (authentic). Users can justify such portrayal by arguing it is not a lie, rather a promise that can be fulfilled shortly. For example, online daters could include an old photo of themselves practicing a sport they have not engaged with ever since, but intend to engage with this sport at some point in the future. Lastly, CMC allows for editability of content which means that content can be edited and adjusted before it is shared with others. It was found that on dating profiles, photographs were most likely to be the most deceptive part about a profile (Toma et al., 2008). The reason for this is that online daters often enhance their photos through photo editing before uploading them to a dating profile (Peng, 2020; Tiggeman & Miller, 2010). It may be tempting

for online daters to engage in idealized self-presentation, as they often believe that being too honest about characteristics may be disadvantageous in the dating market, causing thus such information to be left out or misrepresented (Schmitz et al., 2011). However, online daters also want people to like them for who they really are, in anticipation of meeting potential matches face-to-face. This is a reason for online daters to engage in more authentic self-presentation (Ellison et al., 2006). Authentic self-presentation means there is little to no discrepancy between the online presented self and the real self (Bij de Vaate et al., 2020; Twomey & O'Reilly, 2017). The identity claims made on the profile, such as one's name and age, are truthful, and the person on the photo on the dating profile really portrays the owner of the profile (Ellison et al., 2006). Twomey and O'Reilly (2017) mentioned that research should differentiate between different types of self-presentation in order to draw any conclusions about the matter. Therefore, authentic and ideal self-presentation will be treated as two separate concepts throughout this research.

Previous research has shown that authentic and ideal self-presentation are differently related to self-esteem: self-esteem relates positively to authentic self-presentation, and negatively to ideal self-presentation (Kim & Baek, 2014; Michikyan et al., 2014; Twomey & O'Reilly, 2017). Within a systematic review on the association between mental health and self-presentation on Facebook, it was found that, first, authentic self-presentation was consistently, positively associated with high self-esteem. Thus, when someone views themselves more positively, indicating high self-esteem, they self-present more truthfully on their online profile. Second, it was discovered that ideal self-presentation was associated with low self-esteem. This means that whenever someone has a more negative self-view, low self-esteem, they tend to present an idealized version of themselves. These findings are in line with other research towards self-esteem and self-presentation on Facebook (Kim & Baek, 2014; Michikyan et al., 2014). It is

thought that those with high self-esteem do not feel the need to present themselves differently in online scenarios as opposed to their offline selves (Kim & Baek, 2014).

Most studies regarding the relationship between body image and self-presentation primarily focus on the effect that active self-presentation on SNS may have on body image, although some research suggests that self-presentational behavior is likely to be a consequence of someone's dispositional level of both body image and self-esteem (Bij de Vaate et al., 2020; Mills, 2018; Veldhuis et al., 2020). As there is little to no research available on this specific direction of the relationship between body image and self-presentation, the existence of this direction of the relationship has only been suggested. For example, it was tested whether both self-esteem and body image motivated active self-presentational behavior on SNS. No significant effects were found, but a reversed analysis testing both directions of the proposed relationship revealed that the relationship was stronger when body image and self-esteem were preceding self-presentation (Veldhuis et al., 2020). This is a direction of the relationship between body image and self-presentation that has previously been overlooked in research towards self-presentation on SNS in general (Veldhuis et al., 2020), let alone within an online dating context that differentiates between different types of self-presentation. However, as self-esteem and body image are highly correlated (Audrey et al., 2020), the direction of the proposed relationships is expected to be similar to the proposed relationships of self-esteem with authentic and ideal self-presentation.

Furthermore, previous research found that the level of self-esteem and/or body image influences the engagement of self-enhancement through photo-editing (Lau & Idang, 2022; Maharani et al., 2020). More specifically, lower levels of self-esteem and body image increases the likelihood of photo-editing behavior, for example to compensate for their insecurities,

whereas those with higher levels of self-esteem were found to engage in less editing behavior on SNS such as Instagram (Maharani et al., 2020). Self-enhancement through photo manipulation could range from adjusting the brightness of a photo, to transforming the size of body parts (Kim & Chock, 2015; Mankotia & Wesley, 2020; Mclean et al., 2015). Therefore, editing photos allows online daters to highlight those things they perceive to be positive about themselves (e.g. adjusting a photo to make their eyes stand out), and to hide aspects they perceive to be disadvantageous in the dating process (e.g. by removing blemishes and/or pimples), before sharing them on their online dating profile. Thus, having a lower level of self-esteem and/or body image, may thus increase the likelihood of self-enhancement through photo editing, meaning the self-presentation is more ideal, whereas those with higher levels of self-esteem may thus engage in less photo-editing behavior, leading their online self-presentation to incorporate fewer discrepancies between the actual self and the self-presented online, presenting more authentically (Bij de Vaate et al., 2020; Twomey & O'Reilly, 2017).

Altogether, based on the research provided it is thus expected that the relationships of self-esteem and body image with self-enhancement is mediated by authentic and ideal self-presentation. Therefore, the following hypotheses are proposed:

**H1:** The relationship between self-esteem and self-enhancement is mediated by authentic self-presentation in such a way that self-esteem is positively related to authentic self-presentation, and authentic self-presentation is negatively related to self-enhancement.

**H2:** The relationship between self-esteem and self-enhancement is mediated by ideal self-presentation in such a way that self-esteem is negatively related to ideal self-presentation, and ideal self-presentation is positively related to self-enhancement.

**H3:** The relationship between body image and self-enhancement is mediated by authentic self-presentation, in such a way that body image is positively related to authentic self-presentation, and authentic self-presentation is negatively related to self-enhancement.

**H4:** The relationship between body image and self-enhancement is mediated by ideal self-presentation in such a way that body image is negatively related to ideal self-presentation, and ideal self-presentation is positively related to self-enhancement.

## 4. Method

### 4.1 Data and Sample

This research has been conducted through a self-reported survey study. The survey was written in English, in order to increase the odds of recruiting a great number of respondents. All responses were collected through convenience sampling by sharing the survey on SNS via the author's personal SNS platforms (Instagram, WhatsApp, and Facebook). Additionally, the survey was also distributed on Reddit, generating no responses. In total, 226 responses were collected. However, 86 responses were removed due to incompleteness, leaving a total number of 140 responses. In order to fill out the distributed survey, respondents had to take a look at their online dating profile. Nine respondents had indicated that they are not currently active on an online dating app but had been in the past, meaning they could not take a look at their profile when filling out the survey. However, in the recruitment process, it was stated that respondents could still fill out the survey in case they remember which photos were on their profiles. These responses were kept to increase the odds of gathering a substantial sample size, as remembering the photos on the dating profile suffices for the goal of this research.

Of all 140 remaining respondents ( $M_{age} = 24.59$ ,  $SD_{age} = 3.38$ ), 92 identified as female, 47 as male and one respondent identified as non-binary. Most respondents currently live in the

Netherlands ( $n = 127$ ), and were in possession of either a university degree ( $n = 75$ ; 53.6%), or an associate degree in college ( $n = 28$ ; 20%). Most respondents were attracted to only the male gender ( $n = 87$ ), followed by only the female gender ( $n = 41$ ), and both ( $n = 11$ ). Lastly, one respondent indicated to be attracted to all genders. More than half of the respondents used two or more dating apps ( $n = 84$ ; 60%). The dating app used by most respondents was Tinder ( $n = 111$ ; 79.3%), which was also the most popular, as 69 respondents indicated they used it most frequently compared to other dating apps. Other popular dating apps were Bumble ( $n = 60$ ; 42.9%), and Hinge ( $n = 20$ ; 14.3%). As all these apps heavily rely on photo-based matching, it can be assumed that respondents are familiar with this type of online dating.

## **4.2 Measures**

This self-reported survey study consisted of scales that measured self-esteem, body image, authentic self-presentation, ideal self-presentation, and self-enhancement. All items of the scales were measured on a five-point Likert scale and can be found in the Appendix.

### **4.2.1 Self-Esteem**

Self-esteem ( $M = 3.94$ ,  $SD = 0.6$ ) was measured using the Rosenberg Self-Esteem Scale (RSE)(Rosenberg, 1979), from which five items were selected that best fit the purpose of this study (e.g., “I am satisfied with myself”), which were measured on a five-point Likert Scale (1 = strongly disagree to 5 = strongly agree). The scale was found to be reliable, reporting a Cronbach’s  $\alpha$  of .84.

### **4.2.2 Body image**

Body image ( $M = 3.25$ ,  $SD = 0.8$ ) was measured using the Body Image State Scale (BISS). This scale, developed by Cash et al. (2002), measures perceived body image and originally consists of seven items that could be answered on a seven-point Likert scale (e.g.,

“Right now I feel satisfied with my physical appearance”). Three items were removed, as these were not considered to be relevant in the context of the current research, leaving a total of four items. The statements of the remaining items were reformulated in order to be more similar to the other scales used in this survey, in order to simplify the analysis process. The number of points on the Likert scale was also reduced from seven to a total of five in order to match the number of items on the other scales used in the survey (1 = strongly disagree to 5 = strongly agree). The adjusted scale that was used had a Cronbach’s  $\alpha$  of .86.

#### ***4.2.3. Authentic & Ideal Self-Presentation***

Authentic and ideal self-presentation were measured using a scale designed by Michikyan et al. (2014), measuring different types of self-presentation on Facebook. The scale was altered to fit an online dating context. The items measuring deceptive self-presentation and real self-presentation were combined into one scale, as being more deceptive automatically decreases authenticity, and vice versa. One item was removed, as it did not fit the context of this research and contained a double-barreled question. This left a total of seven items (e.g., “Who I am on my dating profile is similar to who I am offline”) that measured authentic self-presentation ( $M = 3.73$ ,  $SD = 0.5$ ) on a five-point Likert scale (1 = strongly agree to 5 = strongly disagree). With a Cronbach’s  $\alpha$  of .78, this scale can be considered reliable.

The original scale of Michikyan et al. (2014) included only one item to measure ideal self-presentation (“I post photos of myself on my dating profile that reflect aspects of who I want to be”). To create a more reliable measurement of ideal self-presentation, and to make it more balanced compared to the measurement of authentic self-presentation, two items were added. These added items were created based on the way previous literature described ideal self-presentation, including the hyperpersonal model (Walther, 1996) (i.e., “I intentionally leave out

aspects about myself on my profile.”), and the analytical lens of ‘profile as promise’ (Ellison et al., 2011) (i.e., “The photos on my dating profile include qualities that I currently don't possess, but used to have, or strive to have in the future.”). Ideal self-presentation ( $M = 2.64$ ,  $SD = 0.7$ ) was ultimately measured by three items on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). Reliability analysis showed a Cronbach’s  $\alpha$  of .51 and an inter-item correlation of .27. This score for Cronbach’s  $\alpha$  is rather low, but as the scale consists of only three items, and the inter-item correlation is between .2 and .4, it is deemed acceptable (Briggs & Cheek, 1986). Removing any items would have decreased the Cronbach’s  $\alpha$ . Therefore, the choice was made to continue with the scale as tested.

#### ***4.2.4 Self-Enhancement***

Lastly, the level of manipulation of photos uploaded on online dating profiles is measured. This was done using Gioia et al.’s revised Self Photo Manipulation Scale (2021), which was originally created by McClean et al. (2015). The scale, initially consisting of eight items, measures the level of photo manipulation (e.g., “I adjust the light/darkness of the photo”). All items reflect different ways in which photos through which online users self-present can be enhanced. However, some items reflect small adjustments (“I used a filter to change the overall look of the photo”), whereas others reflect more extreme forms of photo manipulation (“I make specific parts of my body look larger or smaller.”). Overall, one item was removed from the original scale due to unclear formulation, leaving it open to the interpretation of respondents. The remaining seven items measured the level of self-enhancement through photo manipulation ( $M = 1.45$ ,  $SD = 0.5$ ) on a five-point Likert scale (1 = never to 5 = always). The scale as a whole was found to be reliable with a Cronbach’s  $\alpha$  of .75.

### 4.3 Procedure

The survey was conducted using Qualtrics (Appendix). Here, participants were informed about the general topic of the survey, their rights as a respondent, and the handling of the data. After providing consent to participate, respondents were asked whether they have a profile on a mobile dating app and whether they had used this app in the past four weeks. Those who did not meet these requirements were initially sent to the end of the survey. However, this led to the removal of respondents who did have a dating profile but who had not used it recently. As inactivity on dating apps does not mean that respondents do not self-present on their online dating profile, the choice was made to keep these respondents in the survey process. Afterward, respondents were asked to provide demographic information (age, country of residence, level of education, gender). Additionally, respondents were asked to report which dating apps they used in general, and what dating app was used most frequently. Then, respondents were to respond to five statements measuring self-esteem and four statements measuring body image. After filling out all nine statements, respondents were asked to take a look at their own online dating profile(s), specifically the photos that were currently visible for others, and to fill out the survey with their dating profile(s) in mind. The statements that followed measured authentic and ideal self-presentation. The final statements of the survey pertained to the level to which respondents had enhanced and/or edited the photos prior to uploading them to their online dating profile. When reaching the end of the survey, respondents were thanked and debriefed by telling them the purpose of the study.

## 4.4 Analyses

### 4.4.1 Factor Analysis

As the self-enhancement scale contains multiple statements that reflect different degrees and/or types of photo manipulation, a factor analysis was performed using varimax rotations in order to determine whether self-enhancement consists of multiple factors. With a significant Bartlett's test ( $p < .001$ ), and a KMO value of .69, which is well above the required minimum value of 0.5, the results show that a substantial proportion of the variance can be accounted for by the factors, and can hence be interpreted. The factor analysis shows that self-enhancement consists of three factors which together explain 75% of the variance. These three factors seem to represent various degrees of self-enhancement. This is in line with prior expectations, as the items included on the scale measuring self-enhancement inquired about photo-enhancing techniques on multiple levels, from small, photographic enhancements ("I adjusted the light/darkness of the photos"), to bigger alteration of appearance ("I make specific parts of my body look larger or smaller"). Three factors were created based on how the items clustered together.

The first factor is called Photographic Enhancement,  $r = 0.612$ ,  $p < .001$ , ("I adjusted the light/darkness of the photos; I used a filter to change the overall look of the photos"). This factor includes the two items that measure the smallest degree of self-enhancing techniques (compared to the other two factors). The second factor is called Appearance Enhancement ( $\alpha = 0.75$ ), as it was comprised of three items inquiring about small adjustments made to slightly enhance the appearance ("I edited to hide blemishes like pimples, scars and/or impurities; I edited the photos to smoothen my skin; I adjusted the photos to make myself look skinnier"). This factor measures a moderate degree of self-enhancement. Lastly, the third factor is called Appearance Alteration,  $r$

= 0.463,  $p < .001$ , which comprises two items about altering the face and body (“I make specific parts of my body look larger or smaller; I use photos that use an interactive filter”). This factor measures the biggest degree of self-enhancement, as facial and bodily features are changed in such a way that they are changed to be different from reality.

#### **4.4.2 Testing Hypotheses**

In order to test all hypotheses, two mediation analyses were performed with self-esteem/body image as independent variables, authentic or ideal self-presentation as mediating variables, and the self-reported use of self-enhancement techniques as the dependent variable. Then, in an exploratory mediation analysis, it was investigated whether the three factors of self-enhancement (Photo Enhancement, Appearance Enhancement, Appearance Alteration) as the dependent variables generated significant and/or different results. To perform all mediation analyses, Hayes’ PROCESS extension on SPSS was used (Hayes, 2017; model 4; 10,000 bootstrap samples).

## **5. Results**

### **5.1 Correlations**

Table 1 shows the correlations between all variables of this study. Results show multiple, significant correlations. For example, self-esteem and body image have a positive, moderate correlation,  $r = .56$ ,  $p < .001$ , which is according to expectation based on previous research (Audrey et al., 2020) that body image and self-esteem are close-knit concepts that correlate. Additionally, there is a weak, negative correlation between authentic and ideal self-presentation,  $r = -.42$ ,  $p < .001$ , indicating that whenever a respondent scores higher on authentic self-presentation, they partake less in ideal self-presentation. This makes sense as someone who presents themselves in an authentic manner, would engage less in idealized self-presentation.

**Table 1**

*Correlations for Body image, Self-esteem, Ideal self-presentation, Authentic self-presentation, and Self-enhancement*

Variable	1	2	3	4	5
1. Body image	1				
2. Self-esteem	.560**	1			
3. Ideal self-presentation	-.179*	.236**	1		
4. Authentic self- presentation	.133	.180*	-.418**	1	
5. Self-enhancement	.042	-.006	.165	-.103	1

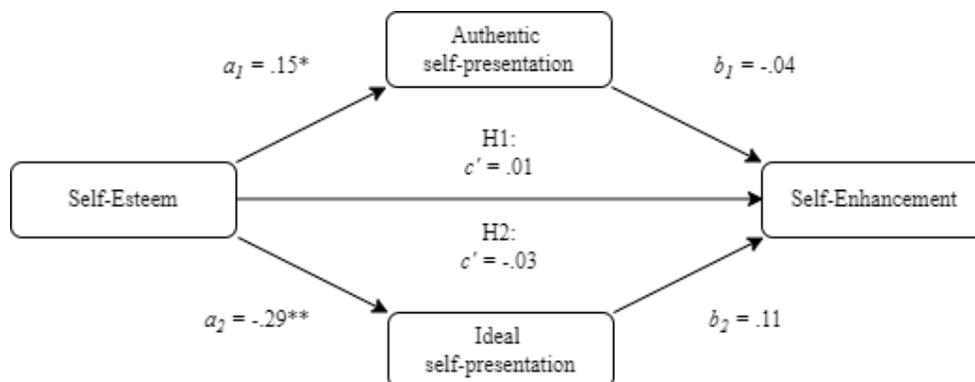
\* $p < .05$ . \*\* $p < .01$ .  $N = 140$ .

## 5.2 Mediation Analysis

H1 proposed that self-esteem positively relates to authentic self-presentation and that authentic self-presentation, in turn, negatively relates to self-enhancement. Results show a significant positive relationship between self-esteem and authentic self-presentation,  $b = .15$ ,  $SE = .07$ ,  $p = 0.034$ , accepting path  $a_1$  (see Figure 1). This  $b$  value of .15 indicates that whenever a person scores one point higher on self-esteem, scores on authentic self-presentation increase by .15. There is, however, no significant relationship between authentic self-presentation and self-enhancement,  $b = -.04$ ,  $SE = .009$ ,  $p = .631$ , meaning that people who score higher on authentic self-presentation do not score lower on the use of self-enhancement (path  $b_1$ ). The direct relationship between self-esteem and self-enhancement, is already not significant,  $b = .03$ ,  $SE = .07$ ,  $p = .660$ . Although this often indicates that any indirect relationship is unlikely, Hayes (2009) mentioned that it should not be a sign to refrain from further mediation analysis.

**Figure 1**

*Results of the Mediation Analysis Testing H1 & H2*



*Note.* Results of the mediation analysis display self-esteem as an independent variable, authentic and ideal self-presentation as mediators, and self-enhancement as the dependent variable. The coefficient represents the unstandardized coefficients.

\* $p < .05$ . \*\* $p < .01$ .

However, the indirect effect is also insignificant, meaning that the relationship between self-esteem and self-enhancement is not significantly mediated by authentic self-presentation,  $b = -.01$ ,  $SE = .02$ , Bca CI:[-.0449, .0180]. This means that while results confirm that online daters who score higher on self-esteem tend to be more likely to present their authentic selves (path  $a_1$ ), H1 is overall not supported.

H2 stated that self-esteem negatively relates to ideal self-presentation, and that ideal self-presentation positively relates to self-enhancement. Indeed, results show a significant relationship between self-esteem and ideal self-presentation,  $b = -.29$ ,  $SE = .10$ ,  $p < 0.005$ , indicating that people who score higher on self-esteem are less likely to engage in ideal self-presentation (path  $a_2$ ). Comparable as for H1, there is no significant positive relationship between type of self-presentation, in this case ideal self-presentation, and self-enhancement,  $b =$

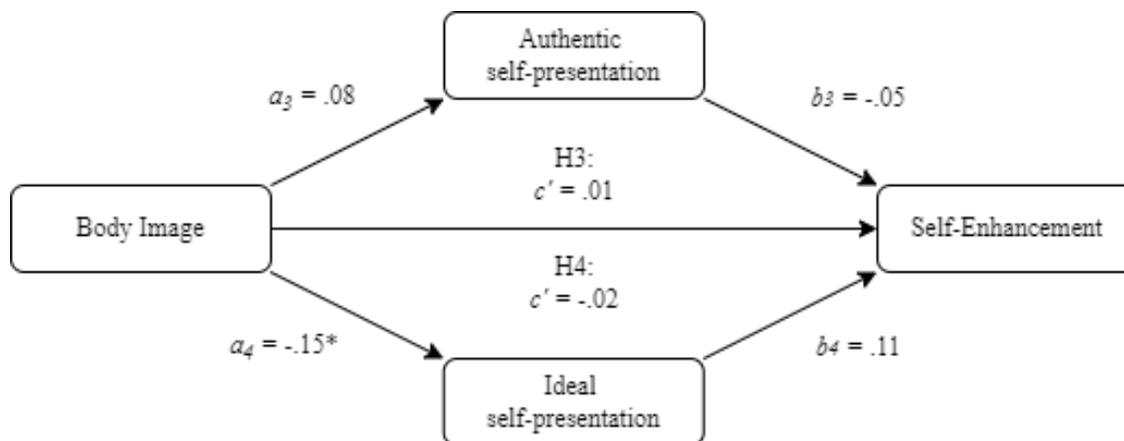
.11,  $SE = .06$ ,  $p = .103$ . Thus, against the expectation, online daters who score higher on ideal self-presentation do not engage in more self-enhancement (path  $b_2$ ). Also ideal self-presentation did not mediate the relationship between self-esteem and self-enhancement,  $b = -.03$ ,  $SE = .03$ , Bca CI:[-.0884, .0140]. All results are visualized in Figure 1. Similar to H1, H2 can also be partially confirmed, as the results confirm path  $a_2$ . These findings imply that online daters who score higher on self-esteem tend to be less likely to present their ideal selves (H2).

H3 proposed that body image positively relates to authentic self-presentation, and that authentic self-presentation, in turn, negatively relates to self-enhancement. Figure 2 visualizes these results. Results show that higher body image scores did not relate significantly to higher (or lower) scores on authentic self-presentation,  $b = .08$ ,  $SE = .05$ ,  $p = .118$ , rejecting path  $a_3$ . Besides, there is no significant, negative (or positive) relationship between authentic self-presentation and self-enhancement,  $b = -.05$ ,  $SE = .09$ ,  $p = .617$ , (path  $b_3$ ). Further, results do not show a significant direct effect between body image and self-enhancement,  $b = .04$ ,  $SE = .05$ ,  $p = .337$ . Lastly, mediation analysis shows that the relationship between body image and self-enhancement is not mediated by authentic self-presentation,  $b = -.01$ ,  $SE = .01$ , Bca CI:[-.0231, .0112]. H3 can thus not be confirmed.

H4 proposed that body image negatively relates to ideal self-presentation, and that ideal self-presentation positively relates to self-enhancement. The visualized results can be found in Figure 2. In line with the expectations of H4, results do show a significant, negative relationship between body image and ideal self-presentation,  $b = -.15$ ,  $SE = .07$ ,  $p = .034$ , indicating that online daters reporting higher body image scores tend to present their ideal selves less frequently. In contrast with expectations of H4, the relationship between ideal self-presentation and self-enhancement is not significant,  $b = .11$ ,  $SE = .06$ ,  $p = .092$ , which does accord

**Figure 2**

*Results of the Mediation Analysis Testing H3 & H4*



*Note.* Results of the mediation analysis display body image as an independent variable, authentic and ideal self-presentation as mediators, and self-enhancement as the dependent variable. The coefficient represents the unstandardized coefficients.

\* $p < .05$ . \*\* $p < .01$ .

with the results of self-esteem (H2). Mediation analysis shows that ideal self-presentation does not mediate the relationship between body image and self-enhancement,  $b = -.02$ ,  $SE = .01$ , Bca CI:[-.0474, .0072]. Overall, H4 can only be partially confirmed as overall mediation is lacking, but results do show that online daters who score higher on body image tend to be less likely to present their ideal selves (path  $b_4$ ).

### 5.3 Additional Analyses

Given the findings of the factor analysis, which show that the seven items measuring self-enhancement can be seen as three different factors (Appearance Enhancement, Photo Enhancement, and Appearance Alteration), six additional mediation analyses were run for all three factors of self-enhancement as dependent variables, and this for both self-esteem and body

image. As the variables used to analyze paths  $a_1$ ,  $a_2$ ,  $a_3$ , and  $a_4$ , remain the same when the dependent variable is changed into one of these factors, only paths  $b_1$ ,  $b_2$ ,  $b_3$ , and  $b_4$ , as well as the overall mediation are explored further.

First, path  $b_1$ , which reflects the relationship between authentic self-presentation and the three factors of self-enhancement as dependent variable, was subjected to mediation analysis. Results show no significant relationship between authentic self-presentation with the factors Photo Enhancement,  $b = -.12$ ,  $SE = .10$ ,  $p = .233$ , Photo Alteration,  $b < .01$ ,  $SE = .19$ ,  $p = .995$ , and Appearance Alteration,  $b = .03$ ,  $SE = .06$ ,  $p = .676$ . Results show that there was no significant, direct relationship between self-esteem and Photo Enhancement,  $b = .06$ ,  $SE = .15$ , Appearance enhancement,  $b = .02$ ,  $SE = .08$ ,  $p = .711$ , and Appearance Alteration,  $b = .02$ ,  $SE = .05$ ,  $p = .675$ . The absence of a relationship between authentic self-presentation with all three factors in combination with the absence of a significant direct effect between self-esteem and all three factors, makes it highly unlikely that a mediating effect is present. This is confirmed by the mediation analysis, leading to the rejection of H1.

Then H2 was tested, in which path  $b_2$  reflects the relationship between ideal self-presentation and either one of three factors of self-enhancement as dependent variable. Results show that again, there is no significant relationship between ideal self-presentation and the factors Photo Enhancement,  $b = .17$ ,  $SE = .13$ ,  $p = .197$ , and Photo Alteration,  $b = .05$ ,  $SE = .07$ ,  $p = .515$ . However, results do show a significant, positive relationship between ideal self-presentation and Appearance Alteration,  $b = .13$ ,  $SE = .04$ ,  $p = .004$ . Thus, the positive relationship between ideal self-presentation and self-enhancement, path  $b_2$ , can only be accepted for the factor of Appearance Alteration. This factor has the greatest degree of self-enhancement compared to Appearance and Photo Enhancement, as Appearance Alteration embodies more

severe bodily changes through photo editing techniques such as interactive filters and/or changing the size of body parts.

When investigating the overall mediation as proposed by H2, which expected a mediating role of ideal self-presentation on the relationship between self-esteem and the three factors, no significant indirect relationships are found for Photo Enhancement,  $b = -.05$ ,  $SE = .04$ , Bca CI:[-.1540, -.0312], and Appearance Enhancement,  $b = -.01$ ,  $SE = .02$ , Bca CI:[-.0667, -.357].

However, there is a significant mediating effect of ideal self-presentation on the relationship between self-esteem and Appearance Alteration,  $b = -.04$ ,  $SE = .03$ , Bca CI:[-.0101, -.001].

Thus, H2 can be accepted when looking at Appearance Alteration as the dependent variable. This result indicates that respondents who report higher levels of self-esteem are less likely to participate in ideal self-presentation, with as a result less extreme appearance alterations, or vice versa.

Then H3 was tested, starting with path  $b_3$ . This path reflects the relationship between authentic self-presentation and either one of three factors of self-enhancement as dependent variable. Results show no significant relationships between authentic self-presentation with the factors Photo Enhancement,  $b = -.001$ ,  $SE = .19$ ,  $p = .995$ , Photo Alteration,  $b = -.12$ ,  $SE = .10$ ,  $p = .233$ , and Appearance Alteration,  $b = .03$ ,  $SE = .06$ ,  $p = .676$ . The direct relationships between body image and Photo Enhancement,  $b = .07$ ,  $SE = .10$ ,  $p = .436$ , Appearance Enhancement,  $b = .04$ ,  $SE = .06$ ,  $p = .436$ , and Appearance Alteration,  $b = .02$ ,  $SE = .03$ ,  $p = .629$ , are also not significant. Again, the absence of any significant relationships between all three factors with body image and authentic self-presentation, makes it highly unlikely that a mediation exists. Therefore, H3 is rejected.

Lastly, H4 was tested starting with path  $b_4$ . This path reflects the relationships between ideal self-presentation each of three factors of self-enhancement as dependent variable. Results of path  $b_4$  are similar to those of path  $b_2$ . That is, while there are no significant relationships between ideal self-presentation and Photo Enhancement,  $b = .18$ ,  $SE = .13$ ,  $p = .182$ , and Photo Alteration,  $b = .05$ ,  $SE = .07$ ,  $p = .447$ , there is a significant, positive relationship between ideal self-presentation and Appearance Alteration,  $b = .13$ ,  $SE = .04$ ,  $p = .004$ . Thus, the higher someone scores on ideal self-presentation, the more likely it is that they score higher on self-enhancement through Appearance Alteration, too. However, results show that ideal self-presentation does not play a significant, mediating role in the relationship between body image with Photo Enhancement,  $b = -.03$ ,  $SE = .03$ , Bca CI:[-.0855, .0155], Appearance Enhancement,  $b = -.01$ ,  $SE = .01$ , Bca CI:[-.0347, .0179], and Appearance Alteration,  $b = .02$ ,  $SE = .01$ , Bca CI:[-.0534, .0005]. Thus, H4 can be partially accepted as results show a significant, positive relationship between ideal self-presentation and self-enhancement. However, results show no significant mediating role for ideal self-presentation on the relationship between body image and self-enhancement and/or all its three factors.

In sum, the results of the additional, exploratory analyses show no support for the expected relationship between *authentic* self-presentation and self-enhancement (path  $b_1$  and path  $b_3$ ), even when considering all three factors of self-enhancement individually. However, a significant positive relationship between *ideal* self-presentation and self-enhancement was found for one of the three factors, that is, Appearance Alteration (path  $b_2$  path  $b_4$ ). This means that respondents who report higher levels of self-esteem and body image are less likely to participate in ideal self-presentation, with as a result less extreme photographic appearance alterations such as interactive filters or changing the size of their body, or vice versa. Lastly, the only significant

mediation found is the mediating effect ideal self-presentation has on the relationship between self-esteem and the factor Appearance Alteration. This means that respondents who report higher levels of self-esteem are less likely to participate in ideal self-presentation, with as a result less extreme appearance alterations, or vice versa.

## **6. Discussion**

This cross-sectional survey study investigated if online dater's self-esteem and/or body image motivate engagement in authentic or ideal self-presentation, and whether these two types of self-presentation are related to self-enhancement. Although previous research has investigated the relationship between self-esteem and online self-presentation, this was primarily in the context of social media platforms such as Facebook and Instagram (Kim & Baek, 2014; Twomey & O'Reilly, 2017). Besides, previous research has only suggested that the dispositional level of body image is related to the way in which people present themselves online (Bij de Vaate et al., 2020; Mills, 2018; Veldhuis et al., 2020). However, no research was done towards this specific direction of this relationship, until this research. Data was collected through a survey, after which a parallel mediation analysis was conducted.

### **6.1 General Findings**

In H1 it was proposed that self-esteem would positively relate to authentic self-presentation and that authentic self-presentation in turn would be negatively related to self-enhancement. H2 posed that self-esteem would negatively relate to ideal self-presentation, and that ideal self-presentation would lead to more self-enhancement. Indeed, results show that people who score higher on self-esteem, are more likely to present themselves in an authentic way on an online dating profile, and less likely to present themselves in an ideal manner. This is in line with the previous findings in research towards online self-presentation among online users

in general (Kim & Baek, 2014) and within the context of Facebook (Michikyan et al., 2014; Twomey & O'Reilly, 2017). It should be noted that the reliability of the scale measuring ideal self-presentation was not particularly high ( $\alpha = .51$ ), which implies that all results related to ideal self-presentation should be interpreted with caution. Further, contrasting expectations, the results do not show a significant, negative relationship between authentic self-presentation with self-enhancement (contra H1), and a positive relationship between ideal self-presentation with self-enhancement (contra H2). As also no significant mediations were found, H1 and H2 could only be partially confirmed.

H3 and H4 proposed similar expectations as H1 and H2, but then with body image and not self-esteem as independent variable. Whereas results did not confirm the hypothesized, positive relationship between body image and authentic self-presentation (contra H3), a significant negative relationship between body image and ideal self-presentation was found (H4). This indicates that online daters who scored lower on body image were more likely to engage in higher levels of idealized self-presentation. This implies that online daters with a lower body image are more likely to actively highlight positive aspects, and leave out more negatively perceived features. This finding supports earlier research that suggests that online self-presentation does not only influence body image, but that body image may also motivate a way of self-presentation (Bij de Vaate et al., 2020; Mills, 2018; Veldhuis et al., 2020).

A potential explanation for the absence of a relationship between body image and authentic self-presentation (H3) could be that only the face was visible in the self-presentation, rather than the entire body. The possibility exists that online daters self-presented through including mostly photos of their face on their dating profile, rather than photos including their entire body. In this case, the way someone feels about their bodies may thus be unrelated to

whether they present themselves authentically or not, as their self-presentation does not include a depiction of one's entire body. This accords with the explanation provided by Mills et al. (2018), who clarified their insignificant effect of selfie-taking on body image by the fact that only the face was visible in a self-presentation, rather than the entire body. At the same time, this reasoning does not explain why a significant, negative relationship was found between body image and ideal self-presentation (H4). It could be the case that online daters include photos depicting their entire body, specifically because of the possibility to idealize this presentation. People may engage in self-presentation that includes depicting their body only after enhancing the way it appears (ideal self-presentation). On the contrary, online daters may refrain from presenting their body as it is, without making any alterations first (authentic self-presentation), because that is the way their body looks like, that they may feel insecure about. However, these are mere suggestions and further research is required to make any grounded conclusions.

Furthermore, no significant relationship was found between authentic self-presentation and self-enhancement (H3), and ideal self-presentation with self enhancement (H4). Thus, the type of self-presentation did not necessarily relate to different levels of self-enhancement. Why this may be, is up for speculation. It may be due to the fact that overall, respondents scored relatively low on self-enhancement ( $M = 1.5$ ,  $SD = 0.5$ ). This means that generally, respondents engaged in low levels of self-enhancement, and that the variety in responses was rather low. This makes it more difficult to find any significant differences in the relationships of authentic and ideal self-presentation with self-enhancement.

Lastly, the relationship between body image and self-enhancement was also not mediated by authentic self-presentation (H3) and ideal self-presentation (H4). Therefore, H3 and H4 could overall not be confirmed. The absence of significant mediating effects may be due to the

relatively lower level of self-enhancement, making it difficult to determine direct and indirect relationships of self-enhancement and body image with self-enhancement.

The additional analyses looked into the relationships of authentic and ideal self-presentation with all three degrees of self-enhancement. Two significant relationships were discovered with regard to Appearance Alteration (i.e., self-enhancement through changing facial and bodily features in such a way that they are different from reality by making body parts look bigger or smaller, and by using an interactive filter). First, there was a significant, positive relationship between ideal self-presentation and Appearance Alteration. Second, the results show a significant mediation between self-esteem and Appearance Alteration through ideal self-presentation, confirming H2. This implies that someone with a lower level of self-esteem is more likely to engage in ideal self-presentation, which in turn increases the odds of engaging in the greatest degree of self-enhancement, that is, Appearance Alteration. It should be noted that there was no significant, direct relationship between self-esteem and Appearance Alteration, which usually makes the discovery of a significant mediation unlikely. Therefore, no hard conclusions can be drawn about the exact relationship between these concepts. But the significant result on this specific factor does indicate that it may be worthwhile to look deeper into the way in which self-esteem, ideal self-presentation, and greater levels of self-enhancement are related.

## **6.2 Theoretical Implications**

The results of this study have theoretical implications for research on self-presentation and its relationships with self-esteem, body image, and self-enhancement within the context of online dating. First, this current research contributes to the literature on online self-presentation by looking into the relationships of self-esteem and body image with self-presentation within the specific context of online dating. Although previous research has addressed the relationships of

self-presentation with body image and self-esteem, this was mostly in the context of other social media platforms such as Facebook and Instagram (Bij de Vaate et al., 2020; Kim & Baek, 2014; Mills, 2018). The findings of previous research, however, were in line with those of the current study, as it was discovered (Bij de Vaate et al., 2020; Kim & Baek, 2014), or highly suspected (Bij de Vaate et al., 2020; Mills, 2018) that self-esteem is positively related to authentic forms of self-presentation, whereas self-esteem and body image are negatively related to ideal forms of self-presentation.

Second, the findings of this study show that the dispositional level of body image is related to self-presentation, while previous research only assumed the existence of such a relationship. More specifically, previous research has often focused on the effect that presenting oneself on SNS has on body image (Bij de Vaate et al., 2020; Mills et al., 2018; Veldhuis et al., 2020), but did not investigate whether the dispositional level of body image could play a role in the way people present themselves online in the first place (Bij de Vaate et al., 2020; Mills, 2018; Veldhuis et al., 2020). This suggests that people with lower body image are more likely to present themselves in a more idealized manner. Although similar research has been conducted regarding the relationship of self-presentation of self-esteem, of which body image is a correlating sub-section, body image specific research was lacking. Future research could further delve into the relationship of self-esteem and body image with self-presentation to investigate, for example, whether these concepts play different roles in predicting what type of photos (e.g. selfies vs. full-body shots) are selected for online dating profiles, and what type of self-presentation best suits this selection process.

Third, the finding that self-esteem is differently related to authentic self-presentation than to ideal self-presentation highlights the importance of differentiating between different types of

self-presentation in order to make any claims regarding its relationships with other concepts, such as self-esteem and body image, as suggested by Twomey and O'Reilly (2017). Thus, self-presentation cannot be measured as one concept as a whole, but should be divided into different types. Future research could focus on conceptualizing and operationalizing these different types of self-presentation, in order to conduct more profound research.

Fourth, although it was found that self-esteem and body image correlated (moderately) positively, the results showed a positive relationship between self-esteem and authentic self-presentation, but the expected positive relationship between body image and authentic self-presentation was absent. This shows that, although these concepts may be perceived to be very similar, they may have different workings in relation to self-presentation. Future research could investigate where this difference in relationships may come from.

Fifth and last, the results of this research show that, when investigating self-enhancement, there may be different levels of self-enhancement at play. Results showed that increased levels of ideal self-presentation are only related to the most extreme degree of self-enhancement, Appearance Alteration, but not to lower degrees of self-presentation (i.e., photo enhancement and appearance enhancement). Future research could investigate whether different levels of self-enhancement yield different relationships with ideal and/or authentic self-presentation, and investigate the cause as to why there are different results for different levels of self-enhancement through photo alteration.

### **6.3 Practical Implications**

The current study highlights that people with lower levels of self-esteem and body image may be more inclined to engage in idealized self-presentation. This may have two consequences. First, engaging in ideal self-presentation could further decrease the level of people's self-esteem

and body image (Liao, 2021; Mankotia & Wesley, 2020). This may then lead to the perpetual cycle as proposed by Mills et al., (2019), in which a lower body image could lead to a worse body image through ideal self-presentation. Following this reasoning, self-presentations on online dating apps could then be increasingly idealized, causing other online daters to be confronted with such self-presentations. This brings us to the second result of ideal self-presentation on dating apps. Besides presenting themselves more ideally, online daters may also be confronted with an increasing number of other idealized self-presentations on dating apps. Being exposed to ideal self-presentation on dating apps by others may in turn also negatively affect self-esteem and/or body image (Cohen et al., 2017; De Vries et al., 2014; Holland & Tiggeman, 2016). This further strengthens the perpetual cycle proposed by Mills et al., (2019). This is a process that should be interrupted as having a bad body image and/or self-esteem could lead to, for example, depression or eating disorders (Verplanken & Tangelder, 2009). Policymakers and/or online dating platforms could implement disclaimers for online daters that not all photos used by other users may be realistic and/or authentic as a way to intervene in this perpetual cycle.

#### **6.4 Limitations and Suggestions for Future Research**

Despite the study's contributions to theory and practice, some light should also be shed on the study's limitations. First, the low reliability of the scale measuring ideal self-presentation ( $\alpha = .51$ ), indicates that interpretations regarding the significant relationships of ideal self-presentation with self-esteem, body image, and the factor Appearance Alteration should be made with caution. Future research could attempt to further operationalize ideal self-presentation by creating a more reliable scale with more items, in order to be more confident about conclusions regarding ideal self-presentation.

Second, this research measured self-presentation, ideal and authentic, and self-enhancement through self-reported scores. Although respondents were assured that editing photos is a commonly used technique, the results may still be prone to social desirability bias. They may, for example, feel ashamed for editing their photos in a certain way or idealizing their self-presentation. Previous research on self-presentation in online dating already showed that online daters viewed their enhanced photos as more accurate than independent judges did who viewed the same enhanced photos (Hancock & Toma, 2009). It may thus also be the case that the respondents of this study assessed their own self-presentation to be more authentic than other people may judge it. With or without intention, respondents may thus have not answered truthfully or perhaps downplayed the level of self-enhancement techniques they engaged with. Future research could conduct a study with independent judges, in which the dating profiles and differences between original photos and the photos uploaded to the profile may be compared by someone else than the online daters themselves. This could lead to results that are less prone to desirability bias in determining the type of self-presentation and the level of self-enhancement techniques used.

Third, not all respondents were active on a dating app when filling out the survey. Although all respondents had created an online dating profile at some point in time, not all respondents were active on these apps at the time of filling out the survey. These respondents were included in the final sample in order to sustain a bigger sample size. The possibility exists that this led to biased and/or untruthful answers as they may not remember which photos were included on their page exactly, and how much they may have been enhanced. Future studies could therefore be more strict in allowing only active dating app users when investigating self-

presentation on online dating profiles. However, such researches may always be prone to some form of bias.

Finally, as this research only investigated the direction of relationships between all concepts, no conclusions can be drawn regarding causality and effects. Future research could, for example, employ a study with a between-subjects design in which the way people with high self-esteem and/or body image self-present online, is compared to those with low self-esteem and/or body image. This way, it can be investigated if high level of self-esteem actually leads to authentic self-presentation, whereas low levels of self-esteem may not and vice versa.

To conclude, this study shows that within an online dating context, people scoring lower on self-esteem, score lower on authentic self-presentation, and higher on ideal self-presentation. For those who score lower on self-esteem and engage in ideal self-presentation, the odds of engaging in greater levels of self-enhancement techniques, such as transforming the size of body parts, increase. Additionally, having a lower body image is only associated with more ideal self-presentation. However, results did not confirm that more engagement in these types of self-presentation led to increased use of self-enhancement techniques. Why this may be the case, is another topic that may be inquired by future research. Overall, although this research has made substantial contributions to previous literature, much is left to be explored regarding the field of self-presentation its typologies, and its relationship to concepts such as self-esteem and body image.

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## 8. Appendix

### The survey distributed through Qualtrics

#### Intro

Welcome,

Thank you for participating in this research from Tilburg University, specifically the Master track "Communication and Information sciences". The goal of this research is to gain further insight into the way people present themselves on their online dating profiles. You can read all information required to answer this survey in the text below. Please read it carefully.

Filling out this survey will take approximately 5 minutes, and can best be done on a desktop. There are no risks involved when participating in this research. All data will be collected and processed anonymously and will be treated with confidentiality, compliant with the GDPR (AVG). Your name cannot be traced back to the results. The anonymized data will be kept for 10 years and can only be shared with other researchers in case they fill out a request.

This research is entirely voluntary and during the research process, you have the right to opt-out at any time, for whatever reason, without any consequences. If you have any questions at a later point during the research, you can get in touch with Maaïke Baas (m.baas@tilburguniversity.edu).

#### Informed Consent

When indicating to agree with participation:

- You have read the above information carefully;
- You are over 16 years or older;
- You know that you can opt-out at any time for whatever reason;
- You agree with your anonymized data being saved for ten years;
- You agree with the use of your anonymized data for possible, future research or academic publications;
- You agree with the fact that your anonymized data could be shared with other researchers upon their request.

I fully accept and want to start with the survey

I decline and I wish not to participate in this survey

### Dating app use

This research investigates the way in which people present themselves on online dating applications. Therefore, we would like to ask you the following question:

Do you have a profile on a mobile dating app, and have you used this app in the previous past 4 weeks?

Yes

No

### Demographics

Before we start, we would like to ask you to answer some demographic questions.

What is your age? (Please provide your answer in numbers)

What gender do you identify with (most)?

Male

Female

Non-binary

Other, namely:

Prefer not to say

In which country do you currently reside?

What is the highest level of school you have completed or the highest degree you have received?

No education

Primary school (Basisschool)

Prevocational secondary education (VMBO)

Senior general secondary education (HAVO)

Pre-university education (VWO)

Post-secondary vocational education (MBO)

Associate degree in college (HBO)

University (Bachelor/Master's Degree)

Other, namely:

Prefer not to say

To what gender do you feel most attracted?

Male

Female

Both

Other, namely:

Prefer not to say

### **Dating app use**

We will now move on to questions regarding your dating app use. Please answer the following:

On which dating app(s) do you currently have a profile. Multiple answers are possible.

Tinder

Bumble

Hinge

Happn

Inner Circle

Grindr

HER

Badoo

Other:

Which dating app do you use most often?

Tinder

Bumble

Hinge

Happn

Inner Circle

Grindr

HER

Badoo

Other:

## BI & SE

### Self Esteem

The following questions are about the way you generally feel about yourself.

Read the items carefully to be sure the statement you choose accurately and honestly describes how you feel.

On the whole...

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I am satisfied with myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel I have a number of good qualities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to do things as well as most other people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that I'm a person of worth, or at least on an equal plane with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take a positive attitude toward myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Body Image

The following questions are about the way you feel about your appearance.

Read the items carefully to be sure the statement you choose accurately and honestly describes how you feel.

Right now...

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I feel satisfied with my physical appearance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel satisfied with the way my body looks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel satisfied with my weight	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel attractive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Authentic self-presentation

Please take a look at the pictures uploaded to your dating profile on the dating app that you use most frequently. Answer the following questions with the photos on this profile in mind.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Who I am on my dating profile is similar to who I am offline	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My dating profile is a good way to express my views and beliefs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The way I present myself on my dating profile is how I am in real life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
On my dating profile, I sometimes try to be someone else than my true self.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Who I am on my dating profile is different from who I am outside my dating profile.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sometimes I feel like my dating profile doesn't entirely show who I am	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I show aspects about myself on my dating profile that are not in accordance with reality.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Ideal self-presentation

Please take a look at the pictures uploaded to your dating profile on the dating app that you use most frequently. Answer the following questions with the photos on this profile in mind.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I intentionally leave out aspects about myself on my profile.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The photos on my dating profile include qualities that I currently don't possess, but used to have, or strive to have in the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I post pictures of myself on my dating profile that reflect aspects of who I want to be.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Photo Manipulation scale

#### Self-enhancement

Many people edit or adjust photos before they share them on their profile.

Please take a look at the photos uploaded to your online dating profile, and indicate how often have you engaged with the following techniques:

	Never	Rarely	Sometimes	Often	Always
I adjusted the light/darkness of the photos.	<input type="radio"/>				
I used a filter to change the overall look of the photos (e.g. by making it black and white or blurring images).	<input type="radio"/>				
I edited to hide blemishes like pimples, scars and/or impurities.	<input type="radio"/>				
I edited the photos to smoothen my skin	<input type="radio"/>				
I adjusted the photos to make myself look skinnier.	<input type="radio"/>				
I make specific parts of my body look larger or smaller.	<input type="radio"/>				
I use photos that use an interactive filter (dog's snout, flower crown, etc.)?	<input type="radio"/>				