

Original Article

Stigmatisation of a Formerly Obese Young Female

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Key Words

Obesity · Overweight · Gender · BMI · Fat Phobia Scale

Abstract

Background: Weight loss does not necessarily decrease the negative appraisal of a formerly overweight individual. Since past weight history tends to be disclosed in several contexts, this study aims to investigate whether negative appraisals are gender-specific and if they are modulated by the evaluators' own BMI. **Methods:** 202 young adults (106 male and 96 female) viewed a picture of a young attractive female (target) accompanied by one of two statements about her past weight (overweight (OW) or always kept a normal weight (NW)), and then rated her using the Fat Phobia Scale (FPS). **Results:** Female evaluators rated the target with the OW statement more negatively than the target with the NW statement. In contrast, males exposed to the OW statement rated the target as having fewer emotional/psychological problems and being less stupid/uncreative. BMI only influenced ratings in males, where those with higher BMI ascribed more negative attributes to the target with the NW statement than the OW statement. **Conclusion:** Information on weight history impacts upon the appraisal of peers. These effects are dependent on gender and BMI. Knowing that a young female was overweight triggered negative evaluations from females but did not appear to impact the judgment of males.

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Introduction

Obesity carries significant negative psychological consequences, some of which arise from negative attitudes toward the obese [1]. The perpetuation of such attitudes is held by some in popular culture to be an important motivation for the individual to lose weight, the reward being greater social acceptance. However, even after weight loss has occurred, past

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weight history may have a dramatic effect on perceptions of an individual, particularly those relating to self-control, personal habits, and personality [2, 3].

Obesity stigma appears to arise from the co-occurrence of a widespread belief that body weight is entirely under volitional control and an exaggerated media preference for and focus on thinness, particularly in women [4]. Obesity is undesirable and the obese are often negatively evaluated on a number of attributes [5, 6]. Unlike stigmatisation related to race, age, and gender, negative attribution associated to obesity is influenced by causal beliefs and responsibility [7, 8]. Overweight people are seen as having a moral flaw that is deserving of blame [7]. In this sense, weight-based stigmatisation is similar to illness stigmas associated with smoking, alcohol, and sexual activity. The condition is a consequence of 'bad' behaviour [9] contracted in 'unseemly' circumstances [10]. Emphasising personal responsibility for obesity increases negative stereotypes. However, knowledge of the complex aetiology of obesity (such as biological and genetic contributors) does not necessarily improve attitudes [11, 12]. For diseases such as HIV/AIDS, though, stigmatisation is recognised as an obstacle to treatment, whereas weight stigma has been suggested by some as a method for obesity control [13, 14]. Although negative stigmatisation could lead to detrimental psychological consequences, on the one hand, research has found that it also correlated with more successful weight loss and weight maintenance after loss [15, 16]. On the other hand, there are reports that have shown that stigmatisation of the obese has a negative impact at both individual and societal levels since it hinders psychological well-being and motivation [17, 18].

Compared to the literature on obesity, very limited research is devoted to the discrimination of the formerly obese. With the rise of obesity, the number of people likely to suffer discrimination either in the obese or post-obese state (having successfully lost weight) is increasing. Previous studies reported that, contrary to expectation, knowing that a female successfully lost weight impacted negatively on the impression that others had of her [19]. Compared with normal-weight or even overweight individuals, a person who lost weight can trigger a particularly strong dislike. A study by Blaine et al. [3] found that formerly overweight females were 'disliked' significantly more than their normal-weight or overweight counterparts. Three reasons were proposed for this: that losing weight i) confirms the view that weight is controllable; ii) threatens the validity of the stereotype that sees obese individuals as lazy; and iii) could make weight more salient which would in turn prompt further stereotyping. The first reason is supported by a study that employed 'before and after' weight loss treatment pictures of a target individual. Participants who saw both pictures rated the target more negatively and indicated that weight was more easily controllable than participants who viewed only the 'before' or 'after' image [2]. Bullock et al. [20] have highlighted that attitude towards the formerly overweight is modified by the perceived effort of losing weight. Thus, if high effort is perceived, the evaluators tend to rate in a more positive way than if no effort is perceived. This has been confirmed in other studies where the evaluators' attitudes are modified by knowledge of the method of weight loss; for instance, individuals who lost weight through bariatric surgery are stereotyped in a similar way to obese individuals [21, 22].

In terms of gender differences studies have reported conflicting results. Some have reported that women seem to be more negative in their attitudes toward overweight people and fatness than men [23–25]. This may relate to the specific media obsession with female thin body shape, whereas the male ideal image is associated with increased muscle mass. These negative attitudes tend to extend to females who have successfully lost weight regardless of the method. An explanation offered to support this attitude is that females perceive a formerly overweight female target as having personality flaws such as poor self-control and laziness that allowed them to gain weight. This flaw, and therefore the potential

to regain weight, still remains after weight loss. In contrast, there are studies which report that whereas implicit attitudes are not influenced by gender, males express more negative explicit attitudes towards overweight people [26]; however, the extension of these attitudes to the formerly overweight was not addressed. Given the conflicting evidence this is an issue that warrants further investigation.

When considering weight status differences, social identity theory postulates that members of a distinct group are more likely to view group members in a more positive light and members of the out-group more negatively [27]. Overweight individuals, however, appear to lack this 'in-group' preference and instead often hold many of the same out-group negative attitudes towards other overweight individuals [28]. An explanation that has been offered for this is that overweight people might see themselves as only belonging to this group in a temporary fashion and therefore not identifying with the group [3]. Furthermore, a study by Geier et al. [2] found that both overweight and normal-weight participants believed in the controllability of weight, and this belief showed a tendency to increase with the participants' own BMI. Nevertheless, data here remain equivocal [29, 30] since other studies have found that the magnitude of anti-fat biases actually appears weaker among people with a high BMI compared with those with a low BMI [25, 31]. Since studies with overweight individuals have reported equivocal results, for the purpose of this research we cannot make predictions on the influence that BMI might have on attitudes.

Today much of the research on obesity discrimination has focused on the current weight status of the individual; however, we know that obesity discrimination can have an impact on perceptions beyond this (for instance, partners of the obese are often attributed the same negative connotations). Weight history is a particularly important variable as individuals must often disclose this under medical information not only in accessing treatment but also in situations such as employment, insurance (other than health) as well as being disclosed in social situations. The current study aims to investigate the effect of gender on evaluations of a formerly obese young female and whether the evaluator's BMI impacts on those perceptions.

Participants and Methods

Participants

Participants were University of Liverpool students (106 males and 96 females), chosen via opportunity sampling. There was no significant difference between male and female ages (19.3 ± 1.52 vs. 20.0 ± 1.56 years) or BMI (23.09 ± 3.24 vs. 22.21 ± 3.59 kg/m²). The BMI (kg/m²) cut offs were <25 for normal weight, 25–29.9 for overweight, and >30 for obese. The BMIs for males ranged from 16.8 to 35.4 kg/m² (76 normal-weight, 28 overweight, and 2 obese) and for females from 15.2 to 32.0 kg/m² (77 normal-weight, 15 overweight, and 4 obese).

Materials

Participants were presented with a picture of a normal-weight (BMI: 20 kg/m²) young attractive female and one of two core statements suggesting the fictional character had either i) always retained the same weight (normal-weight condition) or ii) that she was previously obese (overweight condition).

The 50-item Fat Phobia Scale (FPS) was used [25]. The scale measures individuals' degree of negative attitudes towards obese persons. The scale has reliable internal consistency, factor structure, construct, and content validity. The internal consistency for the total scale, as well as for the six subscales identified by factor analysis, meets criteria that are commonly cited in the literature [32].

The items in the FPS are grouped into six subscales which identify different components of anti-fat attitudes, i.e., those identifying individuals as being undisciplined, inactive, and unappealing (14 items); being grouchy and unfriendly (10 items); having poor hygiene (7 items); demonstrating passivity (10 items); having emotional/psychological problems (5 items); and being stupid/uncreative (4 items).

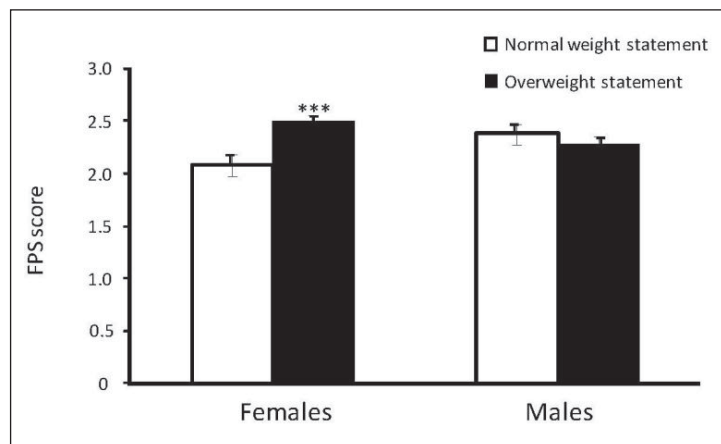


Fig. 1. Overall means score in the Fat Phobia Scale (scores range from 1 to 5). *** $p < 0.001$.

Procedure

The present study used a between-subjects design. The independent variables were the participant's gender, BMI, and statement viewed (normal-weight (NW) or overweight (OW) condition). The dependent variable was the FPS scores. After collecting the participants' details (age, gender, height, and weight), they were randomly assigned to either the NW statement or the OW statement condition. Participants were presented with the picture and the statement and were then asked to rate the individual in the picture using the criteria provided in the FPS. The description of the woman was as follows (the sentence in brackets was the only difference between statements and replaced the previous sentence in the NW condition):

'The picture above shows Jane, she is mid-20s and a graduate who works in I.T. Jane is the youngest of 3 siblings and her parents divorced around 10 years ago. Jane likes animals and romantic comedies. As hobbies Jane goes to the gym three times a week, she used to weigh 16 stone/size 24 (As hobbies Jane goes to the gym three times a week, she has always kept a healthy weight). Last year Jane learnt to drive and she now drives a silver car.'

108 (57 males and 51 females) participants were shown the OW statement and 94 (49 males and 45 females) were shown the NW statement. On completion participants were fully debriefed.

Statistical Analysis

Data were analysed using SPSS version 16.0 for Windows (SPSS Inc., Chicago, US). For the overall FPS score a univariate linear model with two fixed factors (gender (male and female) and condition (NW and OW statement)) was used. For the subscale scores a repeated measures model with two between-subjects factors (gender and condition) was used. A correlational analysis was used to examine the relationship between the participants' BMIs and FPS scores.

Results

The analysis of the FPS scores showed a significant effect of condition ($F(1,198) = 4.9$; $p = 0.028$) and an interaction between gender and condition ($F(1,198) = 11.23$; $p = 0.001$). Women had higher levels of fat phobia towards the person with the OW past statement (2.51 ± 0.05) when compared to the person with the NW past statement (2.08 ± 0.10 ; $t(94) = 3.9$; $p = 0.000$). Among men there was no significant effect (fig. 1).

When analysing the subscales, a significant interaction between subscale score, gender, and condition was found ($F(5,990) = 2.5$; $p = 0.03$). There was also a significant interaction between subscale score and condition ($F(5,990) = 4.7$; $p = 0.000$) but no significant interaction between subscale score and gender. Significant gender effects on subscale scores were only identified when considering responses to the OW statement independently ($F(5,530) =$

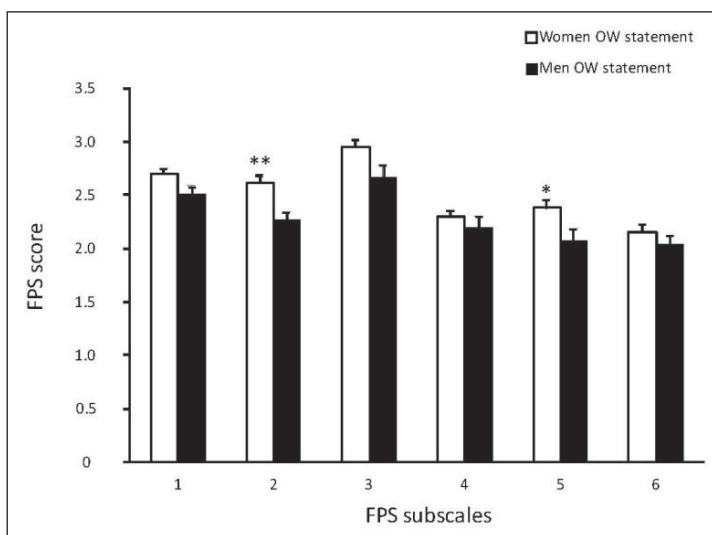


Fig. 2. Subscale means for men and women exposed to overweight statements (scores range from 1 to 5). * $p < 0.05$; ** $p < 0.01$.

Table 1. Means and standard errors for fat phobia subscales

Subscale	Females (n=96)		Males (n=106)	
	NW statement	OW statement	NW statement	OW statement
1: Undisciplined/inactive/unappealing	2.06 ± 0.10	2.69 ± 0.09***	2.32 ± 0.88	2.51 ± 0.81
2: Grouchy/unfriendly	2.10 ± 0.10	2.60 ± 0.10***	2.47 ± 0.98	2.27 ± 0.07††
3: Poor hygiene	1.96 ± 0.12	2.95 ± 0.11***	2.42 ± 0.11	2.67 ± 0.11
5: Emotional/psychological problems	2.14 ± 0.11	2.38 ± 0.11	2.51 ± 0.11	2.08 ± 0.10*†
6: Stupid/uncreative	2.26 ± 0.11	2.14 ± 0.09	2.35 ± 0.10	2.04 ± 0.09*

*Indicates statistically significant differences when comparing the same gender; $p < 0.05$. *** $p < 0.001$.

†Indicates statistically significant differences when comparing the statements between genders; $p < 0.05$.

†† $p < 0.01$.

23.4; $p = 0.000$). This effect was significant in both females ($F(5,250) = 18.94$; $p = 0.000$) and males ($F(5, 280) = 8.6$; $p = 0.000$) (fig. 2). The means and standard errors for each individual subscale can be found in table 1. When analysing each scale separately the following was found:

Subscale 1: Undisciplined/inactive/unappealing. For this subscale there was a significant effect of condition ($F(1, 198) = 22.2$; $p = 0.000$) and a significant gender × condition interaction ($F(1,198) = 6.4$; $p = 0.012$). Women rated the picture accompanied with the OW statement more negatively than the one with the NW statement ($t(94) = 5.2$; $p = 0.000$). Among men there was no significant effect.

Subscale 2: Grouchy/unfriendly. For this subscale there was a significant gender × condition interaction ($F(1,198) = 13.3$; $p = 0.002$). Women rated the picture with the OW statement more negatively than the one with the NW statement ($t(94) = 3.58$; $p = 0.001$). This effect was not seen in men. When comparing male and female responses to the OW statement it was found that women gave more negative attributes to the female in the picture than men ($t(106) = 3.038$; $p = 0.003$).

Subscale 3: Poor hygiene. For this subscale there was a significant effect of condition ($F(1,198) = 31.0$; $p = 0.000$) and a significant gender × condition interaction ($F(1,198) = 10.8$;

$p = 0.001$). Women rated the picture with the OW statement more negatively than the one with the NW statement ($t(94) = 6.5$; $p = 0.000$). Among men there was no significant effect.

Subscale 4: Passivity: No significant effects were found for this subscale.

Subscale 5: Emotional/psychological problems. For this subscale there was a significant gender \times condition interaction ($F(1,198) = 9.9$; $p = 0.002$). Males rated the picture with the OW history more positively than the picture with the NW history ($t(94) = 2.72$; $p = 0.008$). Among the women there was no significant effect. When comparing male and female responses to the OW statement it was found that women gave more negative attributes to the female in the picture than men ($t(106) = 2.21$; $p = 0.03$).

Subscale 6: Stupid/uncreative: For this subscale there was a significant effect of condition ($F(1,198) = 4.1$; $p = 0.045$). Males rated the picture with the OW statement less negatively than the one with the NW statement ($t(94) = 2.37$, $p = 0.019$). Among women there was no significant effect.

BMI, Fat Phobia Scale, and Picture Rating Analysis

There was a positive correlation between the BMI of the males that were shown the NW statement and the total FPS score ($r = 0.336^*$; $p = 0.018$). Thus, the higher the BMI of the man, the more negative attributes he gave to the female with the neutral statement. The same was observed in subscales 1 ($r = 0.386^{**}$, $p = 0.006$), 2 ($r = 0.371^{**}$; $p = 0.009$) 3 ($r = 0.314^*$; $p = 0.028$), and 4 ($r = 0.304^*$; $p = 0.033$). There was no relationship between the female's BMI and total FPS and no correlation between any of the conditions and subscales.

Discussion

Previous studies have found that, consistent with mate selection theory, there are no gender differences in female attractiveness ratings [33]. The results of this study suggest, however, that knowing that a female was overweight in the past can affect these evaluations among women. Thus, this appraisal process can be biased by the knowledge that a normal-weight young female was overweight in the past, even if she is successfully maintaining a healthy weight. A second important finding is that the lack of gender differences observed when judging a normal-weight individual disappears when the evaluator is informed about her past weight history. We found a gender effect where overall women exert more fat phobic attitudes than men towards the female that used to be overweight. These findings are in line with the majority of previous research which has shown that women seem to be more negative in their attitudes toward fat people and fatness than men [23–25].

When analysing the FPS subscales, it was found that women consider a person that was overweight in the past to be more undisciplined, inactive, unappealing, unfriendly, and with poor hygiene. Previous findings have shown that overweight individuals are given more negative attributes such as being lazier, less healthy, less confident, less hard-working, and less happy than normal-weight individuals [14, 34, 35]. This could indicate that female evaluators may apply similar stereotypes to obese and formerly obese individuals. Previous reports have proposed that a reason why formerly overweight individuals are stigmatised is that losing weight reaffirms the preconception that weight is controllable [2]. In this study, consistent with previous reports, it can be seen that female evaluators still give the formerly overweight woman attributes that are associated with lack of control, such as being lazy and less hard-working. An aspect that is particularly interesting is that female evaluators consider a woman that has always kept a healthy weight more active than a woman that has been obese in the past. This is despite the fact that the statement in both conditions clearly says that the subject exercises regularly. This could be explained by a triggering of categorical thinking

(labelling the individual as fat) induced by weight salience. Blaine et al. [3] proposed that formerly overweight individuals are stigmatised in part because knowing that they were overweight increases weight saliency. This in turn increases categorical thinking which ultimately prompts stereotyping [36]. In addition, by knowing that she was formerly overweight, the evaluators assume that the woman was inactive at some point in her life and that is why she became overweight and that trait could still be present despite the fact that they are told that she exercises. Nevertheless, it is important to note that the relevant subscale in the FPS groups active with undisciplined and unappealing; therefore, it remains difficult to understand the role of perceived activity alone.

On the whole, the past weight history of the target female did not seem to influence the judgements made by the male participants. For the overall results as well as for most subscales there were no significant differences between the conditions which could mean that males use the actual features in the picture rather than the statement to make the evaluations. This could relate to the mate selection processes in men where visual clues take precedence; particularly in this case as the current experiment used a picture of an attractive young woman. Eye tracking studies have shown that men spend a lot of time looking at the female body [37] and that of all the features observed, shape and weight seem to be the most relevant ones [38]. Interesting to note is that when men took into account the past history of the female they behaved in the opposite way to the women; i.e., they tended to give more positive attributes to the woman that was obese in the past. This was specific for emotional problems, stupidity, and lack of creativity; suggesting that men think that a female who had the will power to lose weight is less likely to suffer from the above-mentioned features. Although previous studies have found that men and women use different adjectives to characterise overweight individuals [39, 40], the general agreement is that men, similarly to women, tend to view normal-weight females in a more favourable way [41]. This study has shown that this favourable perception can be enhanced in males by informing them that the female had previously been overweight. This could be because they see her losing weight as a positive endeavour on her part.

In terms of psychological well-being, weight loss is undoubtedly advantageous (women report a dramatic life change with a remarkable increase of confidence and self-esteem) [42, 43]. However, the levels of perceived discrimination, at least in women who lose weight through bariatric surgery, can increase as evaluators feel that they took the easy way out [44]. Our results suggest that such discriminatory attitudes could generalise to at least young women who lose weight regardless of the weight loss method. This contradicts previous findings [22] where not knowing the method of weight loss led to positive evaluations. It is important to note, however, that methodological differences could have led to this discrepancy as Fardouly and Vartanian [22] used 'before' and 'after' pictures in their study. Consistent with this, the study by Mattingly et al. [21], which used a similar design with only one image presented, reported findings similar to the current study. Providing weight history information without an accompanying image and measuring obesity prejudice using different scales can yield differing findings. However, in the case of Latner et al. [45] findings appear consistent despite this methodological variety. Future designs should consider the specific image used as a design feature and may need to incorporate multiple stimuli, though.

When taking into account the participant's BMI, it was observed that only the BMI of men who were exposed to the NW statement correlated positively with subscales 1, 2, 3, and 4 of the FPS and the overall score. This means that men with a high BMI tended to give more negative attributes to the female with the neutral statement. If the men are given the information that she was overweight in the past the correlation is lost, which could mean amongst other things that she could be considered an 'in-group' member. In addition, when considering a potential mate, a man with a high BMI could think that a female who had been over-

weight in the past could be more sympathetic towards him. The lack of correlation between BMIs and weight bias has been found in previous studies [46–48] and suggests the absence of a preference, or in-group bias, among overweight individuals. Nevertheless, these results need to be interpreted with some caution as, although the BMI range of the participants was wide, there were only two male participants with a BMI greater than 30 kg/m².

This study only evaluated attitudes of young individuals towards an attractive young female. Although interesting findings are reported, the study has several limitations. The population was self-selected, and since it consisted of undergraduate psychology students, their ages, backgrounds, and education levels were relatively homogenous. Thus, these findings cannot be extrapolated to the general population and require further exploration. In addition, in this study the target was a Caucasian female. As discussed above, gender differences in anti-fat attitudes have been reported; thus, it is also possible that weight loss in females might be perceived differently than in males. Ethnicity could also influence perceptions and therefore is a topic worth exploring. Ideal body types differ markedly between ethnic groups and this is likely to influence the rater's perception. However, it is yet to be determined whether racial differences in the individual being rated would have an effect on study outcomes. This certainly warrants further investigation. Another consideration is that the FPS was originally designed to assess general attitudes toward obese people, whereas this study asked participants to apply the FPS to an individual who had been previously overweight. However, this is not necessarily a disadvantage since the limiting issue of social desirability identified by the creators is negated when rating a lean image. Furthermore, as a trend towards increased obesity discrimination with age has been reported [49], attitudes of older individuals should be explored.

A number of studies have demonstrated that obesity discrimination extends to health care settings. Health care professionals share the negative attitudes towards overweight individuals with the general population [50]. Importantly, even personnel involved in obesity management display anti-fat attitudes [51]. Health care settings constitute environments where weight history is more likely to be disclosed and could possibly, according to current results, change perceptions and attitudes which are particularly important in this context. Where weight status affects clinical decision making beyond the medical complications associated with obesity such prejudices are a matter of considerable concern, warranting further investigation. Thus, future research could aim to evaluate the specific attitudes of health-related professionals.

In conclusion, it can be said that, as predicted, the female with the OW statement was rated more negatively by female evaluators than the female with the NW statement. In contrast, men seemed to be more sympathetic toward the female with the OW statement. There are two main implications of these findings. Firstly, women might think that disclosing that they have successfully lost weight is a positive point. They may believe that this might help them gain social approval providing them with reinforcement for healthy changes to their lifestyle. However, these data demonstrate that actually the opposite occurs if the person receiving this information is a woman. Secondly, although losing weight has tremendous advantages in all aspects, our data suggest that the stigma of being overweight endures despite the considerable effort required.

Disclosure Statement

We wish to confirm that there are no known conflicts of interest associated with this publication and that there has been no significant financial support for this work that could have influenced its outcome.

We confirm that the manuscript has been read and approved by all named authors and that there are no other persons who satisfied the criteria for authorship but are not listed.

We further confirm that the order of authors listed in the manuscript has been approved by all of us.

We confirm that we have given due consideration to the protection of intellectual property associated with this work and that there are no impediments to publication, including the timing of publication, with respect to intellectual property. In so doing we confirm that we have followed the regulations of our institutions concerning intellectual property.

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