

The Influence of Weight Loss Discourses on Fat People's Well-being

Emma Adden

S4364724

Department of Psychology, University of Groningen

PSB3E-BT15.2022-2023.1: Bachelor Thesis

Group: 2223_1a_30

Supervisor: Dr. Yasin Koc

Second Evaluator: Dr. Kyriaki Fousiani

In collaboration with: Luca Katharina Blank, Kristin Lammers, Lina Wienhues, Josephine

Timmermann, Rebecca Stowers

February 8, 2023

Abstract

In recent years, there has been an increase in the amount of people sharing their weight loss journeys online. This leads to the question how different weight loss discourses may affect fat peoples' well-being. To investigate this, we used a between-subjects experimental study focusing on two weight loss discourses, a 'health' and a 'fitting-in' discourse, as well as a control group. We measured how these different weight loss discourses affect fat peoples' body satisfaction, their need to control weight, as well as the internalization of stigma, self-esteem, and depressive symptoms. 302 participants ($N=298$) who were randomly assigned and selected based on their BMI and gender, completed the online study on a US-based survey platform. Precisely, selection criteria required each individual to have a BMI over 30 and female. We hypothesized that the 'fitting-in' and the 'health' condition may have a more drastic impact on the dependent variables than the control group, simultaneously, we expected, that one manipulation condition may have a more drastic effect on the dependent variables than the other. Analysis using one-way between subject ANOVA indicated no statistically significant effects. This may have been due to possible limitations in the research design itself, or also limitations in scales used. Future research should take these into account and focus on more specific demographics of people and more specific dependent variables. Despite the non-significant effects, this study cannot only be used for implications for future research, but also shines a light on a newly developed scheme in the media.

Keywords: Weight loss, health, fitting-in, fat stigma, well-being

The Influence of Weight Loss Discourses on Fat People's Well-being

In recent years, the growth in social media usage has pervaded our daily lives and influenced how we interact with each other and exchange social norms and views. These views often include peoples' opinions on body norms and appearance (Wanniarachchi et al., 2022). Celebrities are a prime example of this, as they have started using social media to interact and communicate their personal lives with a wide audience of people. Therefore, significant life changes, such as weight loss, among other things, are shared by celebrities with thousands of people on the internet by themselves or through other outlets like blogs or interviews. Famous recent examples are Melissa McCarthy, Adele, and Rebel Wilson. People fixate on these weight losses to the point that when searching for these celebrities' names, 'weight loss' is in the top ten search recommendations. Melissa McCarthy mentioned that her weight made her feel 'put in a box' (Miller, 2019) in an interview in April 2018.

Adele experienced similar feelings, claiming that her body has been objectified her entire career (Miller & Felbin, 2021). This recent development in social media has brought relevance to investigating the influence of statements on weight loss and their effect on readers and listeners. In this study, we experimentally investigate how different discourses on weight loss affect readers' body-related aspects, psychological well-being, and emotions.

Fat stigma and Fat talk

According to the World Health Organization, overweight is defined as a body mass index (BMI) greater than 25; obesity is defined as a body mass index greater than 30 (WHO, 2021). To reflect on the purpose of this paper, we use the word 'fat' to refer to overweight people, as we are interested in the stigma around being fat.

Scientific research and evidence continue to concern themselves with the factors related to and consequences of a so-called 'Fat stigma', also termed 'obesity stigma' or 'weight-related stigma'. It includes negative stereotypes, associations, and characteristics

associated with fatness, which is often portrayed as a financial burden to society (Wanniarachchi et al., 2022). Additionally, these associations are discreditable, since fatness is a visible stigma (Pause, 2017). Fat people are held responsible for their fatness through their actions, choices, and behaviors as a consequence of societal structures and interactions, which enhance a blame frame (Pause, 2017). In social media, fat people are often referred to as lazy, undisciplined, inactive, and out of control, as Pause (2017) describes. Nichter and Vuckovic (1994) introduced the term 'fat talk' for a weight discourse whereby people speak negatively about their bodies. In conversation, it is identified through complaining, trading weight management tips, and even speaking about one's body in a joking manner (Britton et al., 2007). Experiencing 'fat stigma' or engaging in 'fat talk' has been shown to drive people to strive for weight loss and influence their dieting intentions (Ogden & Clementi, 2010).

As 'fat stigma' includes numerous negative stereotypes, one of the ways people cope with the stigma is by engaging in weight loss. When celebrities mention the motivation behind losing weight, they often refer back to these stereotypes which they were exposed to, and no longer wanted to be surrounded by. Consequently, in this study, we looked at different discourses on weight loss and investigated if and how the different discourses differ in the way they influence fat people. The two weight loss discourses being contrasted in this research design are a 'health' discourse and a 'fitting-in' discourse, alongside a control group.

Health discourse

"It wasn't a goal to get to a certain weight (...) It was just being the healthiest version of myself", said the actress Rebel Wilson as she reveals that she embarked on a 'year of health' in 2020 (Najib, 2022). As time passes, the amount of celebrities mentioning they took a 'health year' increases, with them using this as an explanation and motivator for their weight loss. At first glance, this may seem allied to something positive, as it implies inclined health, which has many benefits. But in reality, these statements framed as 'healthy life choices' are

actually reframed diets (Standen, 2022). It demonstrates an unhealthy mindset that esteems particular eating and exercising habits over others, causing people to restrict their diets as a consequence. (Standen, 2022)

This plays into one of the stereotype embedded in the ‘fat stigma’, which is that being fat is often associated with laziness and being unhealthy in society. Essentially, this ‘Health’ discourse reinforces the idea that fatness is inherently bad, should be avoided at all costs, and that individuals are solely responsible for their weight (Kite et al., 2022). In addition to perpetuating anti-fat attitudes, beliefs, and perceptions, these statements also encourage stigmatizing behaviors toward people who are overweight or obese (Kite et al., 2022).

This explains a weight-focused social discourse which focuses on the goal of maintaining body weight within the boundaries of a weight range defined as ‘healthy’ (Rodgers 2016). The ‘Healthy Weight’ discourse is conveyed by health-related institutions and professions, but it has also been gaining ground among the mainstream media (Greenhalgh, 2012), and aims to emphasize the association between low weight and decreased health (Park et al., 2012). The ‘health’ discourse, therefore, expresses the wrongful assumption that to be healthy one has to be within a defined weight-range, as the motivator for weight loss. Consequently, we assume that the ‘health’ discourse will have a negative effect on obese people.

Fitting in discourse

“I don’t go to the doctor anymore because I can’t fit into the chairs in the office” and “you’re going to have to get up off the table before it breaks. You’re just too big.” (Gailey 2022). These comments and experiences were reported by participants in a study by Gailey (2022). However, fat people do not solely experience stigmatization in the form of verbal interaction but also through the environment. A paper by Brewis and colleagues (2007) reported on a study which examined the ways in which ‘fat embodiment’ is affected by

failures to physically fit within the built environment by using existing research on disability and ‘misfitting’. Not being able to ‘fit in’ can be assessed by physical–spatial cues: not being able to find medical equipment in a size that works for you, not being able to fit comfortably into seats on airplanes or in public places, not being able to find clothes that fit (Brewis et al., 2007). Fat people encounter a litany of problematic and embarrassing encounters with chairs, narrow restaurant spaces, and narrow seating. Self-degradation may occur among women in order to comply with perceived social norms that will enable them to ‘fit in’ with a group, in this case, in the thin-centric western culture (Britton et al., 2006).

Oftentimes when ‘fitting in’ is discussed, research focuses on the social aspect behind it; as shown in the paper by Ogden and Clementi (2010) where a participant voiced their struggle with taking the bus due to insufficient space. They described that when entering a bus where one of the two seats in the booth is taken, they will not sit on the open chair in fear of making the other person uncomfortable or physically crushing them.

In this study, we focused on the effect these non-inclusive public spaces have on the individual’s well-being; not taking the social norms and contexts into account as they have been explored extensively by research. Research has shown that individuals’ self-identity and perceptions of themselves are influenced by other people’s expectations, implying how both the social and physical contexts might be associated (Clementi, 20120). The ‘fitting in’ discourse therefore expresses the struggles of not fitting into public spaces solely physically as a fat person, as the motivator for weight loss.

These two weight loss discourses were of interest due to different reasoning. The ‘health’ discourse is a topic that recently gained attention through social media. Its impact on people needs to be investigated to be aware of potential negative consequences, as implied above. The ‘fitting in’ discourse is a recurring schema in the physical environment that fat people experience almost daily, as the study by Vartanian and colleagues demonstrates (2014).

It has been found that having a size-inclusive community enhances the well-being, self-esteem, and feelings of belonging of individual participants (Myre et al., 2022). Therefore, it is essential to further investigate the severity of today's non-inclusive environment on fat people.

We expected the two discourses to provoke contrasting reactions in obese participants, and therefore receive a wide range of insight into the daily stigma fat people are confronted with. The 'health' discourse was expected to provoke a rather negative reaction in participants due to its alignment with the 'fat stigma' fat people experience. Contrarily, the 'fitting-in' discourse was thought to rather provoke a positive reaction from participants, as it plays into ingroup favoritism, a favoritism toward members of one's own group compared with others (Everett et al., 2015). This allowed the comparison of each discourse within the control group, whilst also enabling the discourses to be compared to each other.

Body-related attitudes and psychological well-being

To contrast the effects of the weight discourses, we focused on three clusters of dependent variables as a whole, namely, body-related aspects, psychological well-being, and emotions. In this paper, body-related aspects and psychological well-being are discussed.

Here, body-related aspects, includes body image satisfaction, internalizing stigma, and the need to control weight. Body image satisfaction is defined as "a person's mental picture of how good or bad their physical appearance is, especially when compared with how they think they should look" (Body image, Oxford Dictionary). The meaning of internalizing stigma is the act of accepting the fat stigma as part of your character (Internalize, Cambridge dictionary). Weight loss discourses and their included fat stereotypes have been shown to be cross-sectionally associated with body image concerns and disordered eating in adults (Rodgers, 2016). This research design aimed to show data in line with these findings, namely, considering how different weight loss discourses negatively affecting peoples' body image

satisfaction and consequently negatively affecting the need to control weight. There is a high possibility of people internalizing stigmas when they are confronted with them, as people internalize stigmata when they are aware that they have a stigmatized identity (Puhl et al., 2018)

The second cluster, the participants' psychological well-being, measures depressive symptoms and self-esteem. It is crucial to assess whether the statements made by celebrities about their motivators for their weight loss have a significant impact on readers' psychological well-being. Stevens and colleagues (2017) mention the possibility that weight stigma serves as a mediator in the relationship between BMI and poor general psychological health. People who face strong internalized stigma show lower levels of self-esteem, self-efficacy, and poor recovery (Asrat et al., 2018). This research aimed to find results agreeing with the aforementioned findings; talking about factors of the weight stigma as part of a motivator for weight loss may increase depressive symptoms and decrease self-esteem.

Study Overview and Hypotheses

This research study investigates the difference between the effects of two weight loss discourses, 'health' and 'not fitting in', and the control group, on body-related aspects, psychological well-being, and emotions in fat people. Differences between the weight loss discourses are expected.

Regarding the body-related aspects, we expect that the highest body image satisfaction is measured from participants in the control group, as it gives the readers no intention for the described weight loss. Contrarily, the participants in the two manipulation groups are expected to have roughly equally low body image satisfaction scores, as they were confronted with implications of the 'fat stigma'.

H_1 : The 'health' and the 'fitting in' discourse will affect the participants' body image satisfaction negatively, whereas the control groups' will not.

Regarding the need to control weight, both manipulation groups are likely to show a higher level of need in comparison to the control group, as they provide a reasoning behind the described weight loss.

H₂: The ‘health’ and the ‘fitting in’ group will increase the participants’ need to control weight, whereas the control group will not.

Both manipulation groups are likely to show an increase in internalizing stigma in comparison to the control group, for the same reason as mentioned above. The ‘fitting-in’ discourse can be believed to be slightly higher, as this manipulation is supposed to create relatable experiences for the participants, and therefore might be more likely to be internalized.

H₃: The ‘fitting in’ discourse will lead to the highest increase in the participants’ internalization of stigma, followed by the ‘health’ discourse. The control group will not affect the participants’ internalization of stigma.

In terms of the participants’ psychological well-being, we hypothesized that their self-esteem will be impaired most by the ‘health’ discourse, closely followed by the ‘fitting-in’ discourse conditions. The control group will not negatively affect the participants’ self-esteem.

H₄: The ‘fitting in’ discourse will lead to the highest decrease in the participants’ self-esteem, followed by the ‘health’ discourse. The control group will not affect the participants’ internalization of stigma.

Depressive symptoms were hypothesized to have an increase in both manipulative weight-loss discourses due to their alignment with the ‘fat stigma’. The participants in the control group should show no increase in depressive symptoms.

H₅: The ‘health’ and the ‘fitting in’ group will increase the participants’ depressive symptoms, whereas the control group will not.

Method

Participants

Participants were selected using convenience sampling through the PROLIFIC online platform, which is based in the United States. A total of 302 participants completed the study. A sample of 298 responses were able to be used, as four participants were removed due to incomplete answers. The sample ranged in age from 17 to 78 ($M = 41$, $SD = 13$), consisting of 300 females and two participants who chose not to specify. Prior to participants being selected in PROLIFIC, specific conditions had to be considered: participants had to be female and had to have a minimum BMI of 30 to enter the study, which is categorized as “obese” by the WHO (World Health Organization, 2020). The participants’ weight ranged from 87 to 430 pounds ($M = 221$, $SD = 13$). The study received ethics approval from the Ethics Committee of Psychology.

Procedure & Design

In this study, a between-subjects experimental design with three conditions, namely, ‘health’, ‘fitting-in’ and control, was used. The independent variables in this study are the weight discourses ‘health’ and ‘fitting in’, and the control group. Participants were randomly assigned amongst the three conditions. The researchers chose the participants based on Body-Mass-Index (BMI). To participate in this research, participants had to have a BMI over 25. The dependent variables were divided into three clusters: the first cluster is body-related aspects, the second cluster included psychological well-being, and the third cluster consists of emotions. Each student of the thesis chose two of these clusters to work on.

Participants were given informed consent with the right to withdraw, ensuring anonymity and safety. For their participation in the study, individuals received financial compensation. Before starting the questionnaire, participants were asked some demographic questions, such as their BMI, and age. In the next step, each participant was randomly

assigned to one of the three conditions in which different ‘made-up’ magazine articles are displayed: control ($N = 101$), health discourse ($N = 101$), or fitting-in discourse ($N = 100$). The allocation was done by the online survey tool Qualtrics and the data was collected through PROLIFIC. A fake celebrity named “Olivia Turner” was created, with a matching fake magazine article being included about their weight loss. All the articles started with the same paragraph which made up the entity of the control group. The ‘health’ and the ‘fitting-in’ discourses added a second paragraph including the ‘celebrity’s’ motivation to lose weight. All participants read the articles assigned to them and then answered various questions. Finally, there was a debriefing for the participants, in which the aims of the study were explained, and they were thanked for their participation.

Materials

Body Image State Scale (BISS, Bardi et al., 2021)

The translated Body Image State Scale (BISS) is used to measure the individual’s evaluation of their physical appearance at a certain moment in time (state body image). It uses a 6-item measure, rated on a 7-point Likert scale. Each item begins with “Right now, I feel...”. For example, “Right now, I feel (extremely dissatisfied to extremely satisfied) with my physical appearance” or “Right now, I feel (extremely physically attractive to extremely physically unattractive)”. As seen, the phrasing for rating differed each time. The score is made from the mean of each item, with higher scores indicating higher body satisfaction and lower scores indicating lower body satisfaction. Items 5 and 6 were reverse scored. The BISS shows good psychometric properties with a Cronbach’s alpha of 0.77, and adequate goodness-of-fit. Sufficient convergent and construct validity was found. In our study, a Cronbach’s alpha of 0.917 was found, indicating good reliability.

Weight Bias Internalization Scale (WBIS, Durso & Latner, 2008)

The Weight Bias Internalization Scale measures the degree to which participants believe negative stereotypes in the form of self-statements, about people being “overweight” and “obese” (BMI of 25 and higher) apply to themselves (internalized weight biases). It is an 11-item measure, rated on a 7-point Likert scale. Items included multiple areas of content: acceptance/rejection of weight status, desire for change, the effect of perceived weight status on mood, perceived personal value, ease of life, public appearance and social interaction, and recognition of existence and unfairness of weight stigma. One example for an item would be “I hate myself for being overweight”, rated from 1, standing for strongly disagree to 7, standing for strongly agree. Items 1 and 9 were reversed scored. Psychometric properties are sufficient with internal consistency ($\alpha = 0.90$). Adequate construct validity was found. In our study, a Cronbach’s alpha of 0.913 was found, indicating good reliability.

Depression Anxiety Stress Scales (DASS-21, Lovibond & Lovibond, 1995)

The Depression Anxiety Stress Scales measures the degree to which participants have experienced each of 42 negative emotional symptoms over the last week. In this study, the short form of the questionnaire was used, including only 21 items instead of 42. It uses a 4-point severity/frequency scale, ranging from “never” to “almost always”. It includes three scales, Depression, Anxiety and Stress. We only included the Depression scale in this study, as can be found in the Appendix. One example of an item of the Depression scale would be “I was unable to become enthusiastic about anything”. The total score of each scale is calculated by summing all scores of the relevant items. The DASS-21 shows good psychometric properties with internal consistency (coefficient alpha) for each scale were 0.91 for the Depression scale, 0.84 for the Anxiety scale, and 0.90 for the Stress scale. In our study, a sufficient Cronbach’s alpha of 0.950 was found.

Questionnaire to measure need to control weight

To measure ‘need to control weight’ we used a 6-item measure rated on a 7-point Likert scale, ranging from strongly disagree to strongly agree, as seen in the Appendix. Items 2 and 5 were reversed scored. The reliability was sufficient with a Cronbach's alpha of 0.901.

Questionnaire to measure self-esteem

To measure ‘self-esteem’ we made one item, specifically “I have a high self-esteem right now”, rated on a 7-point Likert scale from strongly disagree to strongly agree.

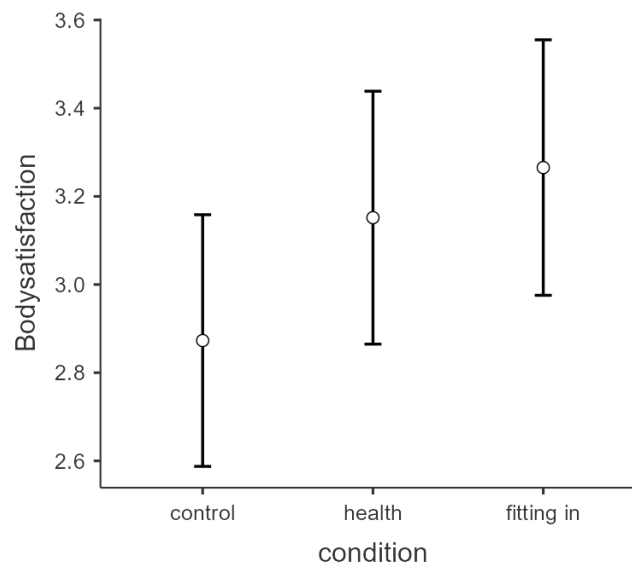
Results

We checked the assumption of homogeneity of variances by using Levene’s test for all dependent variables. We found that the assumption of homogeneity of variances was met, as Levene’s test was non-significant, for ‘Body satisfaction’ ($F(2, 296) = 0.60, p = .55$); as well as for ‘Need to control weight’ ($F(2, 296) = 0.98, p = .38$); for ‘Internalizing Stigma’ ($F(2, 298) = 0.06, p = .94$); and for ‘Depression’ ($F(2, 296) = 1.4, p = .25$); and ‘Self-esteem’ ($F(2, 298) = 0.94, p = .39$). Additionally, we checked the assumption of normality using the Shapiro-Wilk test. It showed that the assumption of normality was not met for any of the variables, as all showed a p-value smaller than 0.05. This is not crucial to our analyses as we performed an ANOVA which is robust to normality and Shapiro-Wilk is susceptible to sample sizes. Accordingly, we performed several one-way between-subject ANOVAs with ‘condition’ as the independent variable on each of our dependent variables.

As for the dependent variable body satisfaction, we found a non-significant effect ($F(2, 296) = 1.92, p = .15, \eta^2p = .01$). As shown in Figure 1, there were no significant differences between the health discourse ($M = 3.15, SD = 0.762$) or fitting in discourse ($M = 3.23, SD = 0.767$) or the control ($M = 2.93, SD = 0.773$). Our hypothesis that ‘body satisfaction’ was significantly lower in the two manipulation groups than in the control group was not supported.

Figure 1

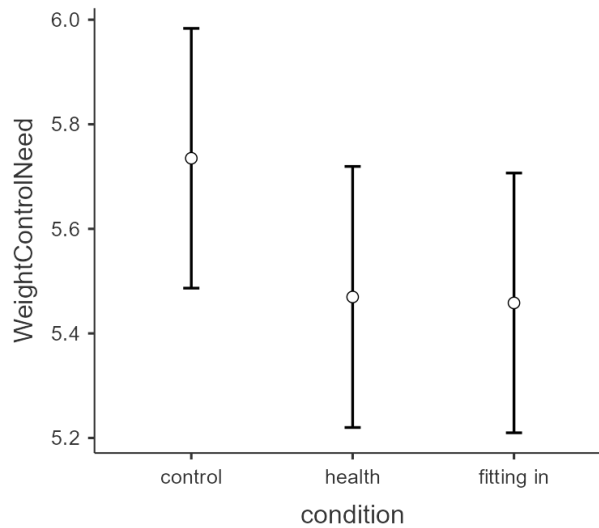
Marginal means of the variable 'Body satisfaction' on all levels of the independent variable.



As for the dependent variable 'need to control weight', we found a non-significant effect ($F(2, 296) = 1.54, p = .22, \eta^2 p = .01$). As can be seen in Figure 2, there were no significant differences between the health discourse ($M = 4.51, SD = 0.536$) or fitting in discourse ($M = 4.51, SD = 0.592$) or the control ($M = 4.57, SD = 0.479$). Our hypothesis that both manipulation groups are going to be significantly larger than the control group was not supported.

Figure 2

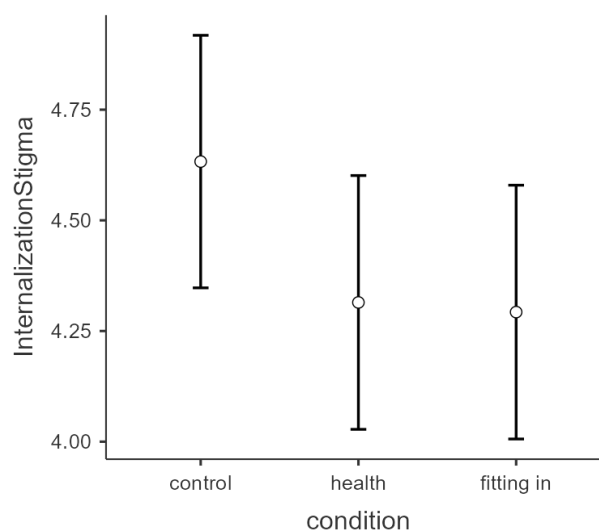
Marginal means of the variable 'Need to control weight' on all levels of the independent variable.



As for the dependent variable ‘internalizing stigma’, we found a non-significant effect ($F(2, 298) = 1.72, p = .18, \eta^2p = .01$). As depicted in Figure 3, there were no significant differences between the health discourse ($M = 4.32, SD = 1.04$) or fitting in discourse ($M = 4.30, SD = 1.07$) or the control ($M = 4.50, SD = 0.987$). Our hypothesis that the ‘fitting-in’ discourse group will score the highest, followed by the ‘health’ discourse group, and the lowest scoring being the control group was not supported.

Figure 3

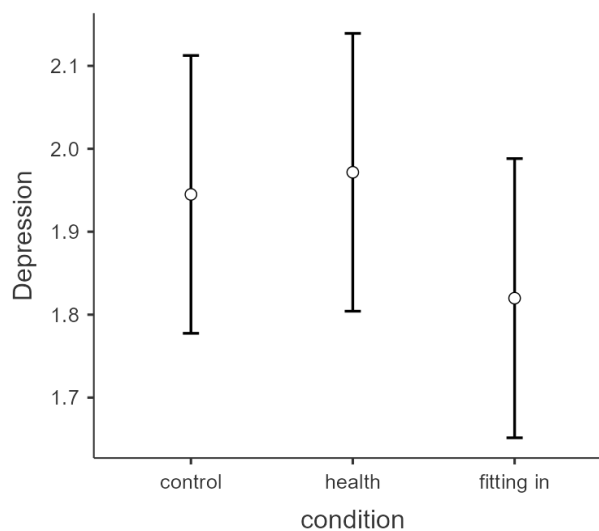
Marginal means of the variable ‘Internalizing Stigma’ on all levels of the independent variable.



As for the dependent variable ‘depression’, we found a non-significant effect ($F(2, 296) = 0.90, p = .41, \eta^2p = .01$). As seen in Figure 4, there were no significant differences between the health discourse ($M = 1.97, SD = 0.912$) or fitting in discourse ($M = 1.82, SD = 0.751$) or the control ($M = 1.95, SD = 0.881$). Our hypothesis that the control group is expected to show no increase, whereas both manipulation groups are expected to increase, was not supported.

Figure 4

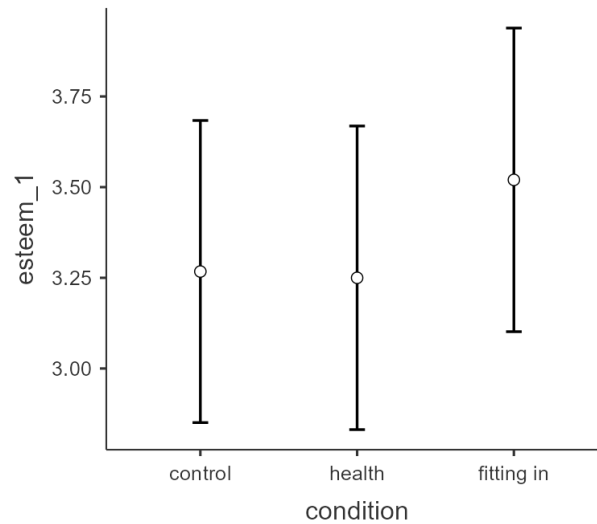
Marginal means of the variable ‘Depression’ on all levels of the independent variable.



As for the dependent variable ‘self-esteem’, we found a non-significant effect ($F(2, 298) = 0.51, p = .60, \eta^2p = .01$). As portrayed in Figure 5, there were no significant differences between the health discourse ($M = 3.25, SD = 2.00$) or fitting in discourse ($M = 3.52, SD = 2.13$) or the control ($M = 3.27, SD = 2.24$). Our hypothesis that participants’ self-esteem will be most impaired by the ‘health’ discourse, closely followed by the ‘fitting-in’ discourse, whereas the control group will not affect the participants’ self-esteem, was not supported.

Figure 5

Marginal means of the variable ‘Self-esteem’ on all levels of the independent variable.



Discussion

In this study, we aimed to investigate the effect of different weight loss discourses on fat peoples' body-related aspects, psychological well-being, and emotions. We expected to find the 'fitting-in' and 'health' conditions having a more drastic impact on the dependent variables than the control group and one manipulation condition having a more drastic effect on the dependent variables than the other. However, no statistically significant effects were found.

As shown in Figures one through five, none of the differences trend between the marginal means of the independent variables' levels are of significance. As a result, we did not find any support for our hypotheses.

Limitations

The non-significant findings of this study could be the result of many reasons. Research has shown that the BMI, which is used in this study, is not always an appropriate measure to indicate overweight or obesity (Humphreys, 2010). The BMI only takes people's weight in comparison to their height into account. This becomes misleading, as people's weight is influenced by body shape and muscle percentage, consequently not always

indicating an unhealthy body weight. In addition, the BMI entails racial differences, as it was made using a Euro-centric view of body types (Humphreys, 2010). This results in it being an inaccurate representation of people of races that are not of Caucasian descent. As we did not ask for the participants' race or ethnicity in the demographics part of the questionnaire, the BMI may have not indicated obesity for all participants correctly. If this was the case, it would be consistent with us finding a non-significant effect, as we only hypothesized a significant effect in obese people. Future research could therefore focus on other weight scales, like the waist-to-hip ratio (Researchers Say Waist-to-Hip Ratio Should Replace BMI—Here's Why, 2022).

On top of that, our sample consisted of participants whose ages ranged from 19 to 78 years with a mean age of 41. This may have shown itself as a contributing factor to our non-significant findings, as it has been shown that at older ages, high body weight is viewed as more acceptable than at younger ages (Jackson et al., 2019). As a result, the participants in our sample may have not been affected by our manipulation due to their old age, even though the effects might have been significant in a sample with younger people. Future research can therefore focus on specific age groups as an additional variable.

Besides prior research having shown alternative explanations, which support our non-significant effects found, this study has potential limitations that must be considered. One of these limitations is the length of our manipulation. The fake magazine articles that had to be read by the participants were no longer than ten sentences, which may have been too few sentences to have provided a significant effect on the measured variables. Additionally, the manipulation was solely shown once, which may have been too little to impact the participants' body-related aspects, psychological well-being, and emotions. Future research can add a more extensive manipulation in terms of length and repetitions.

Besides this possible limitation, the mere effect that weight loss was mentioned in all groups of the independent variable, also in the control group, may have led to the non-significant findings. We did not provide a baseline to how the participants would have scored on the dependent variables, meaning no control group was provided where no weight loss was mentioned at all. Therefore, a possible explanation could be that there is a significant effect between talking about weight loss and the measured variables, which we simply did not find. This may be due to the mention of weight loss already impacting the participants, and the motivation behind it did not make a significant difference on top of that. Future research can add a no mention of weight loss condition to test this explanation.

Furthermore, the sample used for this study was collected through an online survey platform based in the United States of America (USA). This could show itself as a limitation, as the population of obese people (BMI > 30) and the average weight, in general, is higher than in most countries. In the United States, the average BMI of women is 29.6, which falls into the category of being overweight (Wessels, 2020) and more than 2 in 5 adults (42.4%) are obese, therefore having a BMI over 30 (Overweight & Obesity Statistics, 2022). This could be a limitation because people who are surrounded by a higher percentage of fat people, might be more robust to the stereotypes connected to being fat, as it is normalized in their environment. Therefore, the manipulation may have not had a significant effect on people with this demographic but may have had one on others. Future research can bring their focus towards other nationalities, for example an Asian country like China, as their average weight lays lower, which is 24.0 (Zang et al., 2008).

Another limitation may have been the design of our manipulation itself. We decided to use a fake celebrity and a matching fake magazine to avoid biases or prior knowledge in the participants but this may have negatively affected the outcome of this study. Participants may have noticed the hoax and consequently disregarded the seriousness of the article. The story

of the weight loss may have not seemed believable to the participants, leading to non-significant effects in the measured variables. Instead, future research could use quotes from real and known celebrities in their manipulation.

Moreover, a limitation may be too much variance within the sample. We found a large variance in the participants' age and socioeconomic status (SES). This may contribute to our non-significant findings as the effects between the different age groups and SES groups might balance themselves out and therefore lead to neither a positive nor a negative effect. As said previously, future research could focus on a specific age group or also on people of a specific SES.

Lastly, a programming error occurred on our part, as the survey got displayed without including the manipulation check and the attention check. A manipulation check makes participants indicate whether they understood and thoroughly read the manipulation, to make their answer viable. An attention check checks if the participants are reading the answers properly and do not just answer at random. These are essential as they can lead to excluding participants who may pose as influential points in the data. Future researchers should include those in their study.

Future Research

Specifically, future research could focus on three things. Firstly, we did not find a significant effect on female participants but did not study the impact on male participants. Future research could focus on the impact of different weight loss discourses on fat males and the gender difference of this possible effect. Secondly, the manipulation itself could be changed, as it may have not been influential enough. Instead of reading an article, future researchers could prepare a video of people talking about the different weight loss discourses. In addition, they could add repeated exposure to heighten the intensity of the effect of the manipulation. Lastly, as mentioned prior, the fake celebrity may have ruined the credibility of

the study. Therefore, future research could focus on the differences in the effects of using real celebrity statements and fake ones. In order to control for biases, they could provide different groups of celebrities that the participants randomly get assigned to.

In general, future research could focus on the effect of different weight loss discourses on different dependent variables. These could include self-criticism, interpersonal and romantic relationships, work motivation, and stress measured by cortisol levels. There might be a significant effect of the weight loss discourses discussed in this study on other variables as the ones we have measured.

Conclusion

Although our study was not able to show any statistically significant results, it should not be disregarded as meaningless. We still believe that weight loss discourses have an impact on fat people's well-being. For instance, people advise others to follow certain diets or distribute misleading information about their weight loss in order to reach a wider audience, an example of this could be the mentioning of large weight loss in a short amount of time. These instances can lead to decreased well-being in users by putting them under pressure, promoting a need to control their weight, and promoting the 'Fat-stigma' which consequently increases the risks to internalize stigma and a decrease in psychological well-being. Therefore, people should be advised to be careful who or what they believe or how they interpret information given in the media on weight loss.

This study offers suggestions for future research and highlights limitations of this study, which should be taken into account when replicating it in the future. The implications of this study could be improved significantly by doing this, allowing meaningful interpretations about generalizability and importance to the wider population. Hence, this study can serve as a basis for future research that is beneficial to society.

References

- Asrat, B., Ayenalem, A. E., & Yimer, T. (2018). Internalized Stigma among Patients with Mental Illness Attending Psychiatric Follow-Up at Dilla University Referral Hospital, Southern Ethiopia. *Psychiatry journal*, 2018, 1987581.
<https://doi.org/10.1155/2018/1987581>
- Bardi, L., Arnaud, C., Bagès, C., Langlois, F., & Rousseau, A. (2021). Translation and Validation of a State-Measure of Body Image Satisfaction: The Body Image State Scale. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.724710>
- Body image, Oxford dictionary.
<https://www.oxfordlearnersdictionaries.com/definition/english/body-image?q=body+image>
- Brewis A, Trainer S, Han S, Wutich A. Publically Misfitting: Extreme Weight and the Everyday Production and Reinforcement of Felt Stigma. *Med Anthropol Q*. 2017 Jun;31(2):257-276. doi: 10.1111/maq.12309. Epub 2016 Aug 25. PMID: 27272066; PMCID: PMC6084284.
- Britton, Lauren & Martz, Denise & Bazzini, Doris & Curtin, Lisa & LeaShomb, Anni. (2006). Fat talk and self-presentation of body image: Is there a social norm for women to self-degrade?. *Body image*. 3. 247-54. 10.1016/j.bodyim.2006.05.006.
- Everett, J. A., Faber, N. S., & Crockett, M. (2015). Preferences and beliefs in ingroup favoritism. *Frontiers in behavioral neuroscience*, 9, 15.
<https://doi.org/10.3389/fnbeh.2015.00015>
- Gailey, J. A. (2022). The Violence of Fat Hatred in the “Obesity Epidemic” Discourse. *Humanity & Society*, 46(2), 359–380. <https://doi.org/10.1177/0160597621995501>

Greenhalgh, S. (2012), Weighty subjects: The biopolitics of the U.S. war on fat. *American Ethnologist*, 39: 471-487. <https://doi.org/10.1111/j.1548-1425.2012.01375.x>

Humphreys S. The unethical use of BMI in contemporary general practice. *Br J Gen Pract*. 2010 Sep;60(578):696-7. doi: 10.3399/bjgp10X515548. PMID: 20849708; PMCID: PMC2930234

Internalize, Cambridge dictionary.

<https://dictionary.cambridge.org/dictionary/english/internalize?q=internalizing>

Jackson SE, Holter L, Beeken RJ 'Just because I'm old it doesn't mean I have to be fat': a qualitative study exploring older adults' views and experiences of weight management *BMJ Open* 2019;9:e025680. doi: 10.1136/bmjopen-2018-025680

Kite, J., Huang, B. H., Laird, Y., Grunseit, A., McGill, B., Williams, K., Bellew, B., & Thomas, M. (2022). Influence and effects of weight stigmatisation in media: A systematic. *EClinicalMedicine*, 48, 101464. <https://doi.org/10.1016/j.eclinm.2022.101464>

Meleo-Erwin, Z. (2015). 'Shape carries story:' Navigating the world as fat. *M/C Journal*, 18(3).

Miller, K. (2019, November, 26). Melissa McCarthy's Perspective On Weight Loss Is So Insanely Relatable. "When I go shopping, most of the time I'm disappointed.". *Women'sHealth*. <https://www.womenshealthmag.com/weight-loss/g23131238/melissa-mccarthy-weight-loss/#:~:text=Melissa%20told%20People%20magazine%20that,70%20pounds%20in%20four%20months>

- Miller, K., Felbin, S. (2021, November, 15). Adele, 33, Opens Up About Her 100-Pound Weight Loss Journey For The First Time. "I did it for myself and not anyone else.". Women'sHealth.
<https://www.womenshealthmag.com/weight-loss/a30443070/adele-weight-loss-diet/>
- Myre, M., Glenn, N., Berry, T., (2022) Experiences of Size Inclusive Physical Activity Settings Among Women With Larger Bodies, Research Quarterly for Exercise and Sport, DOI: 10.1080/02701367.2021.1983515
- Najib, S. (2022, July, 3). Rebel Wilson Gets Real About Putting on Weight as She Shares Swimsuit Pic: It 'Doesn't Define You'. "If you're like me just know YOU are more than just your weight," Rebel Wilson said while updating her fans about her recent weight gain during a holiday trip. People.
<https://people.com/health/rebel-wilson-gets-real-about-putting-on-weight-shares-swim-suit-snap/>
- Nichter, M., & Vuckovic, N. (1994). Fat Talk: Body Image among Adolescent Girls. In N. Sault (Ed.), *Many Mirrors: Body Image and Social Relations* Rutgers University Press.
- Obesity and overweight. (2021, June 9). World Health Organization.
<https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight#:~:text=For%20adults%2C%20WHO%20defines%20overweight,than%20or%20equal%20to%2030.>
- Ogden, J., Clementi, C., "The Experience of Being Obese and the Many Consequences of Stigma", *Journal of Obesity*, vol. 2010, Article ID 429098, 9 pages, 2010.
<https://doi.org/10.1155/2010/429098>

Overweight & Obesity Statistics. (2022, September 16). National Institute of Diabetes and Digestive and Kidney Diseases.

<https://www.niddk.nih.gov/health-information/health-statistics/overweight-obesity>

Park, M., Falconer, C., Viner, R. and Kinra, S. (2012) The Impact of Childhood Obesity on Morbidity and Mortality in Adulthood: A Systematic Review. *Obesity Reviews*, 13, 985-1000. <http://dx.doi.org/10.1111/j.1467-789X.2012.01015.x>

Pausé, C. (2017). Borderline: The Ethics of Fat Stigma in Public Health. *The Journal of Law, Medicine & Ethics*, 45(4), 510–517. <https://doi.org/10.1177/1073110517750585>

Researchers Say Waist-to-Hip Ratio Should Replace BMI—Here’s Why. (2022, October 6). Verywell Health.

<https://www.verywellhealth.com/could-waist-hip-ratio-replace-bmi-6745714>

Puhl, R.M., Himmelstein, M.S. and Quinn, D.M. (2018), Internalizing Weight Stigma: Prevalence and Sociodemographic Considerations in US Adults. *Obesity*, 26: 167-175. <https://doi.org/10.1002/oby.22029>

Rodgers R. F. (2016). The role of the "Healthy Weight" discourse in body image and eating concerns: An extension of sociocultural theory. *Eating behaviors*, 22, 194–198. <https://doi.org/10.1016/j.eatbeh.2016.06.004>

Standen, S. (2022, February 23). Diet culture’s rebrand: what is toxic health discourse? The Boar. <https://theboar.org/2022/02/diet-cultures-rebrand-what-is-toxic-health-discourse/>

Stevens SD, Herbozo S, Morrell HE, Schaefer LM, Thompson JK. Adult and childhood weight influence body image and depression through weight stigmatization. *Journal of Health Psychology*. 2017;22(8):1084-1093. doi:10.1177/1359105315624749

Vartanian, Lenny & Pinkus, Rebecca & Smyth, Joshua. (2014). The Phenomenology of Weight Stigma in Everyday Life. *Journal of Contextual Behavioral Science*. 3. 10.1016/j.jcbs.2014.01.003.

Wanniarachchi VU, Scogings C, Susnjak T, Mathrani A. Fat stigma and body objectification: A text analysis approach using social media content. *DIGITAL HEALTH*. 2022;8. doi:10.1177/20552076221117404

Wessels, D. (2020, January 8). What is the average weight for women? <https://www.medicalnewstoday.com/articles/321003>

Zhang, X., Shu, X. O., Chow, W. H., Yang, G., Li, H., Gao, J., Gao, Y. T., & Zheng, W. (2008). Body mass index at various ages and mortality in Chinese women: impact of potential methodological biases. *International journal of obesity* (2005), 32(7), 1130–1136. <https://doi.org/10.1038/ijo.2008.63>

Appendix

Weight Loss Discourse I - Control Group



WOMENS'LIFE

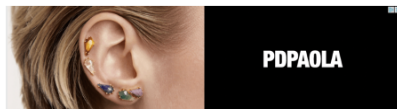
HEALTH FITNESS BEAUTY LIFE RELATIONSHIPS



Olivia Turner lost over 30kgs! Here's how she did it.

Olivia Turner now reveals her weight loss journey in an exclusive interview with us. At first, she was able to lose 20kgs in 6 months. It slowed down, but she continued her journey and eventually lost another 10kgs in the second half of the year. Currently, she is able to successfully maintain her weight loss.

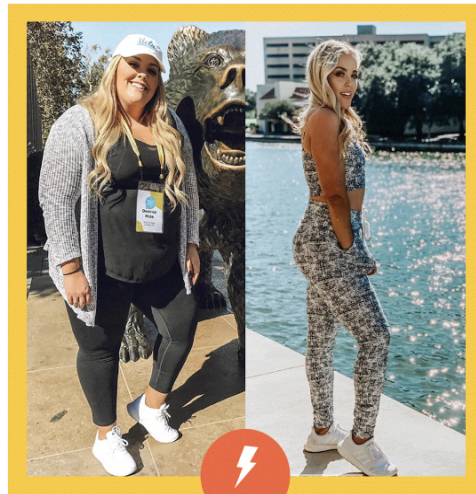
Weight Loss Discourse II - "Health" Discourse



[SUBSCRIBE](#) [SIGN IN](#)

WOMEN'S LIFE

HEALTH FITNESS BEAUTY LIFE RELATIONSHIPS



INSTAGRAM

“I took myself on a health journey and lost over 30kgs!”, said Olivia Turner. Here’s how she did it.

Olivia Turner now reveals her weight loss journey in an exclusive interview with us. At first, she was able to lose 20kgs in 6 months. It slowed down, but she continued her journey and eventually lost another 10kgs in the second half of the year. Currently, she is able to successfully maintain her weight loss.

“This year I wanted to take myself on a health journey.” Olivia Turner describes that she started taking her body more seriously. She explains how her brand-new body positively impacted her health. “My body never felt more energized and amazing. I feel so great!” She explains how her goal wasn't to reach a certain weight but that it is about being the healthiest you can be.

Weight Loss Discourse III - “Fitting-in” Discourse



SUBSCRIBE SIGN IN

WOMEN'S LIFE

HEALTH FITNESS BEAUTY LIFE RELATIONSHIPS



“I didn’t fit into the world around me!”, said Olivia Turner who lost over 30kgs! Here’s how she did it.

Olivia Turner now reveals her weight loss journey in an exclusive interview with us. At first, she was able to lose 20kgs in 6 months. It slowed down, but she continued her journey and eventually lost another 10kgs in the second half of the year. Currently, she is able to successfully maintain her weight loss.

“I have had enough of not fitting into the world around me!” Olivia Turner describes not being able to fit into chairs with arms, restaurant booths having too little space between the table and the seat, and being restricted while traveling, because the seats tend to be too small for her. She recently went to the hospital and the doctor explained that she needs an MRI scan, they would need to transfer her to a different hospital with the appropriate facilities. “I didn’t even know a wide MRI scanner was a thing. I was shocked to realize I didn’t fit into the most basic needs such as a hospital. And then I said to myself it’s time to change!”

Questionnaires

Table 4

Questionnaires for the Dependent Variables

Body-related	Psychological well-being
Body satisfaction: 1. Right now, I feel satisfied with my physical appearance.	Depressive symptoms: 1. cannot seem to experience any positive feelings at all.

- | | |
|---|---|
| <p>2. Right now, I feel satisfied with my body size and shape.</p> <p>3. Right now, I feel satisfied with my weight.</p> <p>4. Right now, I feel attractive.</p> <p>5. Right now, I feel the worse about my looks than I usually do.</p> <p>6. Right now, I feel worse than the average person looks.</p> | <p>2. I feel like a have nothing to look forward to.</p> <p>3. I feel downhearted and blue.</p> <p>4. I am unable to become enthusiastic about anything.</p> <p>5. I feel I am not worth much as a person.</p> <p>6. I feel that life is meaningless.</p> |
|---|---|

Need to control weight:

1. I feel like I need to lose weight
2. I am happy with my weight
3. I feel like I need to control my weight
4. I feel like I need to change my diet
5. I feel happy with my diet
6. I feel the need to go on a diet

Self-esteem:

1. I have a high self-esteem right now.
-