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Weight stigma in frequent exercisers: overt, demeaning and condescending

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Abstract

The aim of the current study was to qualitatively examine weight stigma in individuals who exercise frequently. In total six focus groups comprised of 30 participants aged 18-25 years, were conducted using convenience sampling. All participants were frequent exercisers. Five themes that emerged in the data with participants discussing bullying, the consequences of obesity, causes of obesity, lack of willpower and interventions to reduce obesity. This study is the first qualitative examination of weight stigmatisation in frequent exercisers, where the beliefs reported by focus group participants suggest that frequent exercisers stigmatise, discriminate and dehumanise obese people. Future research to examine the impact of weight stigma on exercise motivation and behaviour of obese people appears warranted.

Keywords: Weight stigma, eating behaviours, bullying, exercise

Introduction

Obesity has emerged as a major global health challenge with reports that the worldwide prevalence of the condition has increased (James, 2008). Research examining the impacts of obesity has increased over time and this has been observed in relation to weight stigmatisation. The role that others play in the management of obesity should not be underestimated. Research has reported that stereotypes of obese people include laziness, sloppiness and a lack of intelligence (Crandall, 1994). It has been reported that weight stigma and discrimination can have detrimental effects on physical, psychological and social well-being and may influence the effectiveness of behaviour change strategies designed to reduce weight (Kristler & Hoerr, 1997; Puhl & Brownell, 2006; Wott & Carels, 2010). There is now a plethora of research demonstrating that obese people are stigmatised in various settings such as the workplace (Bartels & Nordstrom, 2013; Flint, Čadek, Codreanu, Ivić, Zomer, & Gomoiu, 2016; Flint & Snooke, 2014), at home and in school (Puhl & Latner, 2007), in healthcare (Flint, 2015, Swift, Choi, Puhl & Glazebrook, 2013), and in the court room (Schvey, Puhl, Levandoski & Brownell, 2013). Weight stigma has been reported to be more likely in certain population groups such as males, younger adults, those with a normal body mass index (BMI) and the most frequent exercisers (Flint, Hudson & Lavalley, 2015).

Despite the benefits of physical activity for improving and maintaining health and wellbeing, and the links between obesity and physical inactivity, there is a paucity of research examining the links between weight stigma and exercise behaviour. Robertson and Vohora (2008) were the first to examine implicit weight stigma among fitness professionals and frequent exercisers. It was reported that both fitness professionals and frequent exercisers hold implicit anti-fat attitudes, particularly in those who had never been overweight. Interestingly, females reported stronger anti-fat attitudes among the frequent exercisers, whereas more recent research has reported stronger anti-fat attitudes in males (Flint et al., 2015). Additionally, Robertson and Vohora's (2008) sample was limited to 113 participants (57 fitness professionals, 56 frequent exercisers), whilst Flint et al.'s (2015) more recent research that reported weight stigmatisation amongst frequent exercisers had a considerably larger sample of 2380 participants. Flint et al. (2015) examined implicit and explicit attitudes towards obesity, comparing a range of demographic characteristics. In relation to exercise frequency, they reported that stronger anti-fat attitudes were reported in participants who exercised more frequently. Explicitly, participants who exercised more frequently reported more negative attitudes towards obese people and had stronger beliefs that obesity is controllable. Vartanian and Novak (2011) examined the impact of internalised societal

attitudes related to weight on exercise motivation in a sample of participants who considered themselves to be overweight irrespective of actual weight status. They reported that weight stigma negatively impacts exercise motivation particularly in participants who had internalised societal attitudes related to weight. Exercise motivation remains an area of high importance where work continues to be required. In particular interventions to reduce actual and perceived barriers that impact exercise motivation are warranted. Thus, research evidence demonstrates that there is a concomitant relationship between weight stigma and exercise frequency and that weight stigma impacts exercise motivation. Building on this, future research is needed that seeks to understand the reasons why individuals who exercise frequently stigmatise obese persons.

Previous research has reported that bullying and teasing incidents were one of the main barriers to physical activity in school aged children (Bauer, Yang & Austin, 2004). This finding was also reported in a sample of overweight children (Hayden-Wade, Stein, Ghaderi, Saelens, Zabinski & Wilfrey, 2005; Zabinski, Saelens, Stein, Hayden-Wade & Wilfrey, 2003), in female undergraduate university students (Vartanian & Shaprow, 2008). Seacat and Mickelson (2009) reported that weight stigma led to reduced exercise and healthy diet intentions. To our knowledge no research has used qualitative methods to understand weight stigma in frequent exercisers. Exploring frequent exercisers attitudes and beliefs about obesity appears warranted with survey based research reporting that frequent exercisers hold strong anti-fat attitudes and beliefs that obesity is controllable (Flint et al., 2015).

Whilst research reporting that there is a relationship between weight stigma and exercise behaviour (Flint et al., 2015; Robertson & Vohora, 2008) and exercise representing a key element of interventions to treat, manage and prevent obesity, the dearth of studies suggests that additional examination within this population group appears warranted. Furthermore, as a result of the lack of qualitative research related to obesity, Perez and Ball (2015) have called for greater efforts to understand obesity and related issues given the importance of qualitative findings in other clinical and health conditions. Thus, the aim of the current study was to explore weight stigma in frequent exercisers.

Method

Participants

Six focus groups were conducted with a total sample of 30 participants (3 groups of 5 males, N = 15; 3 groups of 5 females, N = 15) using convenience sampling. The sample was comprised of teachers, students, retail workers, personal trainers, researchers, and labourers.

Participants were aged 18-25 years ($M = 22.1, \pm 1.60$ years) with a mean BMI of 23.47 kg.m^2 . All participants were frequent exercisers, meeting the recommended levels of 5 or more days of moderate physical activity. Participants exercise behaviour included use of gyms, sports competition, exercise classes, and outdoor exercise. Same-sex focus groups comprised of participants aged 18-25 years that are frequent exercisers were conducted in alignment with previous research examining anti-fat attitudes (e.g., Flint et al., 2015).

Materials and Procedures

Focus groups were conducted in a controlled environment and the procedure was standardised across the six focus groups, including information about the location and settings, timing, recording equipment, and guidelines for the moderator to prepare and guide the focus groups. At the beginning of the focus group, the aims of the study were discussed with the participants, an information sheet was distributed and all participants provided informed consent. Initial questions were designed to build rapport such as asking about daily activities (i.e., What time did you wake up? What did you do after lunch?). Subsequent questions explored explanations of obesity, perceptions of obese persons and the causes of obesity (i.e., How would you define obesity? What causes obesity?). Open ended questions (i.e., What are the effects of obesity? What can be done to prevent obesity? What can be done to treat obesity?) were used with follow up probes and clarifications where necessary, and the order of enquiry was flexible to allow for varied questions during the focus groups. The focus group procedure was pilot-tested in a convenience sample of active males and females ($n = 6$), and was adapted where necessary. For example, the facilitators ensured that there was a consistent use of terminology for obesity throughout all questions due to perceived differences in the meaning of terms originally used.

Ethical approval was obtained from Sheffield Hallam University Faculty of Health and Wellbeing Research Ethics Committee, UK. Prior to the focus groups, all participants completed consent and a demographics form (age, sex, height, weight, exercise frequency). All focus groups lasted between 50-70 minutes. On completion of each focus group, the moderator and co-moderator debriefed participants. Participants were not offered any incentives.

Data analysis

All focus groups were audio recorded, anonymously transcribed verbatim and quotations were clustered around broad themes. Initially, to ensure trustworthiness of the

analysis, one of the focus group transcripts was shared between three researchers to independently analyse with the intention of developing a triangular consensus. In the instances that one or two of the researchers identified a theme, these were discussed to ensure they reflected the data before a final agreement was reached on the labels assigned to the themes. Independent analysis revealed 42% of the data was identified by all three researchers, 51% by two researchers and 7% by one researcher. After discussions about the meaning of labels by one or two of the researchers, a consensus was reached on all themes identified in the transcript. Subsequently, the lead author analysed and assigned themes to the remaining data in line with the triangular consensus, which was checked and discussed with the second author.

Results

Theme 1: Bullying

Both males and female focus groups offered derogatory comments, and joked when discussing either previous or imaginative bullying incidents. Discussion of bullying and teasing incidents were vast in all six focus groups.

“If you see a fatty exercising, it’s quite funny”

“When you see a fat person running down the road... if we drove past in the car, I am sure we’d shout something at them”

“Prodding them with a stick”

“Grabbing their boobs”

In some instances, participants’ jokes were examples of active dehumanisation of obese people with reference to various animals.

“Yeah because if you’re on the beach and you’re a fatty, someone might throw Shamu back in the water and stuff”

“Get Free Willy back in the water”

“Call Greenpeace, there’s a beached whale here”

“In their case, there might be relevance to saying you eat like a horse”

“You can hear fat people coming, like a stampede of elephants”

Whilst females openly acknowledged that the behaviour discussed represented bullying, in two of the male only focus groups, participants also reported a perception that they did not perceive bullying obese persons to be bullying.

“Calling someone fat isn’t bullying”

“I wouldn’t say bullying them is calling them fat”

“Cos they are fat, it’s stating the obvious”

“You call him a fat boy, its stating the obvious, it’s like calling me tall, cos I am tall”

Both male and female participants commented that the negative impacts of bullying can be beneficial in encouraging the individual to change their lifestyle behaviours, particularly in relation to food consumption.

“That’s why bullying can help them”

“Bullying fatties might stop them eating so much”

“Teasing them might make them realise that they are overeating”

“No one likes being bullied. Maybe they will eat healthier and lose weight so they don’t get bullied”

When participants discussed obese persons, they also remarked that they tried to distance themselves from obese persons and that they have different interests to obese persons.

“Yeah, when we went to school, we didn’t hang around with fatties”

“If you want to pull the girls, you don’t walk around with fatties”

“It’s because we like, we like sport don’t we and play football and they don’t like sport as much”

“But they’re generally not as fun”

“When we’re outside having fun, they’re inside eating”

“I think we know that fat equals no fun doesn’t it really”

“Fat does equal no fun”

“Their hobbies are eating”

Theme 2: Consequences of obesity

Participants also discussed their perceptions of the consequences of obesity, referring to physical, psychological and social impacts. This included having fewer friends and sexual activity.

“Because they’re fat, they’re like, sometimes they’re not as socially well adapted, because they don’t have the confidence so that’s why they don’t make as many friends”

“Everyone loves a quarterback, so if you’re the quarterback of the football team you have loads of mates, but if you’re a fatty who doesn’t play sport, then you have to make friends with others who eat loads”

“They also take up too much space, particularly on public transport”

On a number of occasions, participants reported a belief that obesity is unattractive and that fatness affects the likelihood of attracting a romantic partner. Links between eating behaviours and perceived attractiveness were also discussed.

“He wants to get fanny in Kavos, and that won’t happen if he is a fatty”

“You don’t want to keep the calories up, especially in the summer you don’t want to be fat so you slim down, eat the right foods. Fatties don’t do that”

“Unless you are fat, you don’t find other fat people attractive”

“Eat less, slim down, and improve your chances of finding someone”

Theme 3: Controllable causes of obesity

Participants discussed the causes of obesity and in most instances discussed the controllable causes for the condition. Overconsumption was consistently discussed as the primary cause for obesity.

“So we talk about the supermarket, we talk about parenting, so the food that the children are eating are bought by the parents, so is one of the factors that causes obesity the, the children’s actual parents?”

“I find parents just want to make their kids happy and giving the fast food and sweets makes them happy”

“It’s obvious. Eat loads, become fat”

“If you eat more than you can burn, then you’re going to get fat. In their case, they’re eating loads more”

In a number of focus groups, participants offer candidate explanations for the cause of the condition, where obese persons are blamed in explanations offered for their condition.

“It’s their own fault”

“They don’t work out and eat properly”

“Advertising draws them in and they buy crap food”

“They’re being fat and lazy”

When genetic influences for obesity were discussed, participants dismissed them and reverted back to controllable explanations for the causes of obesity. Whilst genes were mentioned, they were not discussed in any detail in comparison to controllable explanations.

“Peoples’ genes from their parents being fat and lazy, so they’re being fat and lazy, eating fast food and stuff like that”

“I don’t really think that genes go along with fat and lazy”

“If you don’t exercise and you eat lots of fast food you’re a fatty”

“Genes don’t make you buy rubbish food. If you walk into a supermarket, all you will find next to the desk is sweets and chocolate. You don’t find apples by the desk, you find them hidden away”

Theme 4: Lack of willpower

Participants’ believed that a pathological lack of willpower or self-control is the cause of obesity. Participants also related obesity to addiction issues such as gambling or smoking, suggesting the loss of control experienced is comparable, where a smoker addicted to cigarettes is like an obese person’s addiction to food. For example, one participant joked regurgitating the Pringles crisps slogan to reflect this addiction; *“once you pop, you can’t stop”*. This idiomatic comment is typical of how this notion reflects being part of people’s culture, and internalising environmental messages endorsing them as personal beliefs.

“But they make a lot of it on those programmes, all you have to do is stop eating and, stop eating as much and do more exercise”

“There are a lot of people who want to eat loads, but they control themselves. Fatties either can’t or choose not to control their intake”

“Yeah but food is a drug”

“Food is a drug yeah, to fat people, food is like weed... or cigarettes... or gambling. It’s like gambling to me”

“Food to fatties is like oxygen to me”

There also seemed to be a consensus within the focus groups that obese people lack effort to either prevent or reduce their obesity.

“If they really tried they could lost some weight. No one needs to eat that much”

“If I want to improve the way my body looks I will eat healthy and work harder in the gym. Obese people don’t want it enough or else they would. It all comes down to how much you really want it”

“Fatties should put the same amount of effort into getting a fit body that they do getting fatter”

Theme 5: Interventions for obesity

Participants acknowledge the recent smoking ban in public houses, and in a similar vein following the comparison made between addiction to smoking and food, suggestions are offered that there should be a fat ban or a fat area. Participants also discussed additional tax for obese persons, appearing to be aware of this strategy in other countries.

“So they need to, like they have done, a no smoking ban in pubs, they need to do a no fat ban”

“There could be like a fat area. Then we don’t have to be around them”

“Obese people should be taxed more for food than people who can control their eating”

“There are food taxes in other countries, can’t we have that here? But not for us though”

In line with strong beliefs that obesity is controllable, participants also suggested interventions to target energy intake and expenditure.

“Make them do exercise and stop being so lazy”

“There needs to be punishment which they would want to avoid. Like no food unless you exercise”

“Instead of paying them to exercise, what about paying if you don’t exercise?”

“What about paying healthy people? That might motivate fatties to change so they get paid also?”

Discussion

The current study represents the first qualitative examination of obesity perceptions in frequent exercisers. The study provides a rare and important insight into weight stigmatisation that appears to be the result of strong beliefs that obesity is caused by poor eating behaviour. In line with previous research (Flint et al., 2015), participants reported strong beliefs that obesity is a controllable condition with eating behaviour and a lack of exercise as the primary causes. In particular, the stereotypes of gluttony and slothfulness are consistently endorsed by frequent exercisers. This is constant with previous reports that suggest weight stigma is related to beliefs that obesity is caused by controllable factors. Additionally, when discussing potential interventions to reduce weight, participants report stigmatising attitudes and misconstrued policy reporting an inclination to tax obese people, and to segregate overweight and obese people purely based on weight status. The anti-fat attitudes reported by frequent exercisers may represent either actual or perceived barriers to attending exercise environments or engaging in exercise as reported by Vartanian and Novak (2011).

Bullying and teasing experiences were discussed and in some instances participants openly admitted engaging in such behaviours. Participants discussed physical, psychological and social bullying experiences directed towards obese persons. As reported recently (Bernard, Nathalie & Klein, 2014), participants' actively dehumanised obesity referring to obese people as animals and describing their eating behaviour as animalistic. Interestingly, male participants' reported a belief that calling obese people 'fat' was not perceived as bullying behaviour and that this was synonymous to identifying individuals by other characteristics such as height. The belief that the term fat isn't an insult is in alignment with the position stance of the National Association to Advance Fat Acceptance (Bacon, Scheltema, & Robinson, 2001) and fat activists (Saguy & Ward, 2011), who advocate the use of the term fat rather overweight or obesity. Consistent with stereotypes reported in previous research (Foster, Wadden, Makris et al., 2003), participants' stated that they perceived obesity to be unattractive, and that by improving eating behaviour and consequently losing weight, obese people can increase their chances of a romantic relationship.

The role of weight stigma has become a topic of discussion in recent years. Current study findings demonstrate that frequent exercisers believe that stigmatising obese persons might provide the motivation to reduce make healthier choices and reduce their obesity. In line with participants' perceptions that weight stigma may improve eating behaviour and thus

encourage reduce obesity, Puhl and Heuer (2010) suggested that weight stigma may encourage obese people to lose weight. However, empirical evidence (Wott & Carels, 2010; Major, Hunger, Bunyan & Miller, 2013; Schvey, Puhl & Brownell, 2011; Vartanian & Smyth, 2013) demonstrates that stigma can lead to poor dietary choices, and lower motivation to diet, exercise, and lose weight among obese people. Weight stigma has also been suggested to counterproductively lead to weight gain and obesity (Jackson Beeken & Wardle, 2014; Sutin & Terracciano, 2013).

It should be noted that participants in all groups employed a variety of discursive devices that are useful to the understanding and underlying meaning of responses, as well as how the groups reacted as units. For example, collaborative arguments were evident throughout, where members of the groups consistently supported and echoed other group members' opinions, providing an indication of how social perceptions are often shared and consistent. This was also reflected in the use of consensus warranting devices as a means of clarifying an opinion. This study is not without its limitations. Participation was voluntary and there was not any screening based on knowledge of obesity, which may have resulted in recruitment of frequent exercisers who have unrepresentative perspectives. Thus, the participants recruited may have a disproportionate amount of knowledge of obesity which might not reflect frequent exercisers knowledge in this area. Additionally, the representativeness of the focus groups, like any focus group research, might have been impacted by the chosen data collection method where individuals who are less articulate and have lower confidence may have been discouraged from participating. Likewise, the age range of the current study sample may mean that the findings are not generalizable to older populations. Previous research (e.g., Flint et al., 2015) has suggested that weight stigma differs with age, with younger adults reporting more stigmatising attitudes and stronger beliefs about the controllability of obesity than older adults. Finally, participants' prior knowledge of other participants in the same focus group was not considered. This might have impacted the responses provided in the instance that participants were acquaintances with other members of the same focus group.

Western society is continuously informed through sources such as the media that obesity is caused by controllable factors (Flint et al., 2015). Encouragingly, despite the varied success of previous weight stigma interventions (Flint, Hudson & Lavalley, 2013), research (Hague & White, 2005; O'Brien, Puhl, Latner, Mir & Hunter, 2010) has demonstrated that weight stigma can be reduced through education about the uncontrollable causes of obesity, this appears to be a potential area for future work. Moreover, there is a high likelihood that

society will internalise weight stigma caused by consistent derogatory and stigmatising media portrayals (Flint, Hudson & Lavalley, 2016). Research (Durso & Latner, 2008) has demonstrated that obese people internalise and report weight stigma. Consequently, Latner, Durso and Mond (2013) call for strategies to both prevent weight stigma, and internalisation at a societal and individual level, reporting that greater internalisation of weight stigma is linked to poorer physical and psychological health.

A number of future research avenues are evident from the current study. First that research examines the potential impact of weight stigma on exercise motivation and behaviour in obese people, and how this influences choice of exercise setting. Second, the current research supplements previous research (e.g., Flint et al., 2015, Robertson & Vohora, 2008), demonstrating that frequent exercisers report stigmatising attitudes and beliefs about obesity and thus, strengthen the argument that frequent exercisers are an ideal target population for future weight stigma interventions. Third, whilst previous research has demonstrated consistent patterns in weight stigma between countries, this is the first study to qualitatively examine weight stigma in frequent exercisers, future qualitative research in different countries appears warranted where societal attitudes may deviate from the United Kingdom where data was collected. The finding suggests that efforts to intervene at an early age are warranted to prevent the development and internalisation of weight stigmatisation and the associated stigmatisation of eating behaviours. In addition, well-meant campaigns and interventions should consider the messages and terminology employed to avoid potentially adversely misleading and inciting stigmatising attitudes towards obesity.

Conclusion

The current study represents the first qualitative examination of weight stigmatisation in frequent exercisers. The findings of this study demonstrate that frequent exercisers openly stigmatise, discriminate and dehumanise obese people. They report strong beliefs that obesity is controllable where poor eating behaviour is suggested as the main cause of obesity alongside physical inactivity. Thus the current study demonstrates that frequent exercisers overtly blame obese people for their weight status. They also appear to endorse the stereotypes of obesity such as gluttony, slothfulness, unattractiveness and lacking willpower, and participants appeared to be ambiguous about their demeaning and stigmatising attitudes and beliefs about obese people.

The current study highlights the potential of ill-informed beliefs about the causes of obesity, and thus, the subsequent attitudes towards obese people. We argue that these findings

should be considered in efforts to intervene at all levels, to prevent public health campaigns and programmes leading to adverse effects in fostering stigmatising attitudes and beliefs about obesity. The current study findings suggest that future research efforts that aim to reduce weight stigma in frequent exercisers, should include an educational element to counter ill-informed beliefs about the causes of obesity.

Authors' contributions

SF led the conception and design of the study. SF conducted the literature review. SF and SR were involved in the data collection. SF and SR were in the analysis and interpretation of data. SF drafted the manuscript. SF and SR were involved in revising the manuscript and finalising the content of the manuscript. SF and SR read and approved the final manuscript.

Competing Interests

None.

Ethical Approval

Obtained from, Sheffield Hallam University's Faculty of Health and Wellbeing Research Ethics Committee.

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References

Bacon, J. G., Scheltema, K. E., & Robinson, B. E. (2001). Fat phobia scale revisited: the short form. *International Journal of Obesity*, *25*, 252-257.

Formatted: English (U.K.)

Bartels, L. K., & Nordstrom, C. R. (2013). Too big to hire: Factors impacting weight discrimination. *Management Research Review*, *36*, 868–881.

Bernard, P., Nathalie, M., & Klein, O. (2014). Obese people = Animals? Investigating the implicit “animalization” of obese people. *Romanian Journal of Applied Psychology*, *16*, 40-44.

Bauer, K. W., Yang, Y. W., Austin, S. B. (2004). “How can we stay healthy when you’re throwing all of this in front of us?” Findings from focus groups and interviews in middle schools on environmental influences on nutrition and physical activity. *Health Education & Behaviour*, *31*, 34–46

Crandall, C. S. (1994). Prejudice against fat people: Ideology and self-interest. *Journal of Personality and Social Psychology*, *66*, 882-894.

Durso, L. E., & Latner, J. D. (2008). Understanding Self-directed Stigma: Development of the Weight Bias Internalization Scale. *Obesity*, *16*, S80-S86.

Flint, S. W. (2015). Obesity stigma: prevalence and impact in health settings. *British Journal of Obesity*, *1*, 14-18.

Flint, S. W., Čadek, M., Codreanu, S. C., Ivić, V., Zomer, C., & Gomoiu, A. (2016). Obesity discrimination in employment recruitment: 'You're not Hired!' *Frontiers in Psychology*, *7*, 647.

Flint, S. W., Hudson, J., & Lavalley, D. (2016). The Portrayal of Obesity in U.K. National Newspapers. *Stigma and Health*, *1*, 16-28.

Flint, S. W., Hudson, J., & Lavalley, D. (2015). UK adults' implicit and explicit attitudes towards obesity. *BMC Obesity*, *2*, 31.

Flint, S. W., Hudson, J., & Lavalley, D. (2013). Counterconditioning as an intervention to modify anti-fat attitudes. *Health Psychology Research*, *1*, 122-125.

Flint, S. W., & Snook, J. (2015). Obesity discrimination in the workplace: implementation of recent EU laws. *Current Obesity Reports*, *4*, 504-509.

Foster G. D., Wadden, T. A., Makris, A. P., Davidson, D., Sanderson, R. S., Allison, D. B., & Kessler, A. (2003). Primary care physicians' attitudes about obesity and its treatment. *Obesity Research*, *11*, 1168–1177.

Hague, A. L., & White, A. A. (2005). Web-based intervention for changing attitudes of obesity among current and future teachers. *Journal of Nutrition Education and Behavior*, 37, 58-66.

Hayden-Wade, H. A., Stein, R. I., Ghaderi, A., Saelens, B. E., Zabinski, M. F., & Wilfley, D. E. (2005). Prevalence, characteristics, and correlates of teasing experiences among overweight children vs. nonoverweight peers. *Obesity Research*, 13, 1381–1392.

James, W. P. T. (2008). WHO recognition of the global obesity epidemic. *International Journal of Obesity*, 32, S120-S126.

Jackson, S. E., Beeken, R. J., & Wardle, J. (2014). Perceived Weight Discrimination and Changes in Weight, Waist Circumference, and Weight Status, *Obesity*, 22, 2485-2488.

Kristeller, J. L., & Hoerr, R. A. (1997). Physician attitudes toward managing obesity: Differences among six speciality groups, *Preventative Medicine*, 26, 542-549.

Latner, J. D., Durso, L. E., & Mond, J. M. (2013). Health and health-related quality of life among treatment-seeking overweight and obese adults: associations with internalized weight bias. *Journal of Eating disorders*, 1, 3.

Major, B., Hunger, J. M., Bunyan, D. P., & Miller, C. T. (2013). The ironic effects of weight stigma. *Journal of Experimental Social Psychology*, 51, 74-80.

O'Brien, K. S., Puhl, R. M., Latner, J. D., Mir, A. S., & Hunter, J. A. (2010). Reducing anti fat prejudice in preservice health students: a randomised trial. *Obesity*, 10, 1-7.

Perez, A., & Ball, G. D. C. (2015). Are we overlooking the qualitative 'look' of obesity? *Nutrition & Diabetes*, 5, e174.

Puhl, R. M., & Brownell, K. D. (2006). Confronting and coping with weight stigma: An investigation of overweight and obese adults. *Obesity*, 14, 1802-1815.

Puhl, R. M., Heuer, C. A. (2010). Obesity stigma: Important considerations for public health. *American Journal of Public Health*, 100, 1019-1028.

Puhl, R. M., & Latner, J. D. (2007). Stigma, obesity, and the health of the nation's children. *Psychological Bulletin*, 133, 557-580.

Robertson, N., & Vohora, R. (2008). Fitness vs. fatness: implicit bias towards obesity among fitness professionals and regular exercisers. *Psychology of Sport and Exercise*, 9, 547-557.

Saguy, A. C., & Ward, A. (2011). Coming out as fat: rethinking stigma. *Social Psychology Quarterly*, 74, 53-75.

- Schvey, N. A., Puhl, R. M., & Brownell, K. D. (2011). The impact of weight stigma on caloric consumption. *Obesity, 19*, 1957-1962.
- Schvey, N. A., Puhl, R. M., Levandoski, K. A., Brownell, K. D. (2013). The influence of a defendant's body weight on perceptions of guilt. *International Journal of Obesity, 37*, 1275-81.
- Seacat, J. D., & Mickelson, K. D. (2009). Stereotype threat and the exercise/dietary health intentions of overweight women. *Journal of Health Psychology, 14*, 556-567.
- Sutin, A. R., & Terracciano, A. (2013). Perceived Weight Discrimination and Obesity, *PLoS ONE, 8*, e70048.
- Swift, J. A., Choi, E., Puhl, R. M., & Glazebrook, C. (2013). Talking about obesity with clients: preferred terms and communication styles of UK pre-registered dietitians, doctors and nurses. *Patient Education and Counseling*. doi.org/10.1016/j.pec.2012.12.008.
- Vartanian, L. R., & Novak, S. A. (2011). Internalized societal attitudes moderate the impact of weight stigma on avoidance of exercise. *Obesity, 19*, 757-762.
- Vartanian, L. R., Shaprow, J. G. (2008). Effects of weight stigma on exercise motivation and behavior: a preliminary investigation among college-aged females. *Journal of Health Psychology, 13*, 131-138. 14.
- Vatanian, L. R., & Smyth, J. M. (2013). Primum Non Nocere: Obesity Stigma and Public Health, *Journal of Bioethical Inquiry, 10*, 49-57.
- Wott, C. B., & Carels, R. A. (2010). Over weight stigma, psychological distress and weight loss treatment outcomes. *Journal of Health psychology, 15*, 608-614.
- Zabinski, M. F., Saelens, B. E., Stein, R. I., Hayden-Wade, H. A., Wilfley, D. E. (2003). Overweight children's barriers to and support for physical activity. *Obesity Research, 11*, 238-246.