“I always feel that I’m underestimated”: Obesity stigma in the workplace

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Abstract

This thesis aims to examine obesity stigma in the workplace, both the evidence for, and experience of, obesity stigma. In the context of rising rates of obesity there is an increasing recognition of the negative impact of obesity stigma. Despite this, limited research has been conducted in the workplace and specifically, research examining obesity stigma in UK workplaces is lacking. Using a mixed-methods approach this thesis examines obesity stigma in the workplace through the lens of attribution theory in addition to exploring the potential impact of the cultural values: thin-ideal internalisation and healthism.

To address the aims of this thesis three studies were conducted. The first study was a systematic literature review (n = 38) which examined where in the employment cycle research has been conducted. The results suggested that obesity stigma may be occurring throughout the employment cycle, however the majority of the research had been conducted in the US, with student samples and had predominately focused on recruitment. Therefore, the second study using a vignette design, examined obesity stigma in decisions relating to disciplinary actions amongst nursing managers. The findings showed that although nursing managers did not display behavioural bias there was a high prevalence of fat phobia. In addition, 66% of the nursing managers were overweight or obese. These findings have implications for organisations with regards to mitigating the potential effects of obesity stigma both in patient and colleague interactions. Finally, a third study was conducted examining the experiences of individuals with obesity once they are within an organisation. Interviews were conducted with a diverse sample of 21 UK employees. The findings highlight the diverse range of obesity stigma individuals with obesity are subjected to in the workplace, five overarching factors that impact on obesity stigma in the workplace and insights into how obesity stigma at work can be overcome. Together these findings suggest that to overcome obesity stigma, modifying the workplace in isolation is not likely to be sufficient; changes at the societal level are also required.

This thesis provides novel insights into obesity stigma in UK workplaces in a number of ways. Taken together, these findings could help to inform both the justification for and development of evidence-based interventions to address obesity stigma at work. The implications for further research and practice are also discussed.

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1.1 Introduction

This chapter offers an introduction to obesity and obesity stigma. It explores the definition, prevalence, causes and impact of both obesity and obesity stigma. An overview of research highlighting the links between obesity and work is presented, the limitations of the current literature are discussed, and the structure of the thesis is provided. It concludes with a summary of the aims of the three studies, the overarching research question and the author's reflexive positioning.

1.2 The definition and prevalence of obesity

The definition of both obesity and overweight is "abnormal or excessive fat accumulation that may impair health" (World Health Organisation, 2018, para. 1). Using Body Mass Index as a measure of obesity – which is calculated using an individual's height and weight – an individual is defined as 'obese' if their BMI is in the 30-39.9 range (NHS, 2019). As Bento, White and Zacur (2012, p. 3198) explained "the extra weight may come from muscle, bone, fat and/or body water, but in clinical terms the word obesity is reserved for people with a BMI threshold of about 30lb overweight and indicates a high amount of body fat." Obesity is an ever-increasing global problem; recent data suggests that in 2016, 39% of adults (18 and over) were overweight and 13% were obese (World Health Organisation, 2018). Specifically, in the UK, in 2019, 29% of adults were classified as adults with obesity (NHS Digital, 2019). Globally, the number of adults with overweight and obesity increased by 27.5% between 1980 and 2013 (Ng et al., 2014) and data suggests that the prevalence of obesity continues to increase. Future projections of obesity levels in the UK population range from 50% of the population by 2030 (Wang, McPherson, Marsh, Gortmaker & Brown, 2011) to 70% by 2034 (UK Health Forum, 2014). However, within the UK predictions vary by region, for example by 2050 it is estimated that 70% of women in Yorkshire and Humberside will be obese, in comparison to regions in the south-west where the prediction is much lower at 7% (Agha & Agha, 2017). This may be due to differences in socioeconomic status as research has shown robust associations between socioeconomic status and BMI (e.g. Wardle, Waller & Jarvis, 2002). BMI is often used to measure overweight and obesity, but it has been criticised because it cannot be used to distinguish between body lean mass and body fat mass and the definition of obesity relates to excessive

fat accumulation. It also does not enable identification of where fat is located in the body and it has been suggested that BMI is a crude indicator of health (Nuttall, 2015). Furthermore, researchers suggest that although obesity correlates with some diseases, this does not always infer causality (Egger & Dixon, 2014).

One alternative to using BMI is to use dual-energy x-ray absorptiometry (DEXA). This enables assessments of fat mass, lean body mass and bone mineral mass and it is one of the most precise measures of body composition. Kennedy, Shea and Sun (2009) compared BMI categories and body fat percentage as measured using DEXA amongst 1712 participants; the results showed that using BMI 34.7% of the female participants and 35.2% of male participants were classified incorrectly. The findings suggest that BMI criteria should be more nuanced to reflect factors such as gender, age and ethnicity. Although the results highlight some of the limitations of using BMI, one of the disadvantages of using other methods (e.g. DEXA) is the cost associated with these whereas BMI does not require any specific equipment and therefore is easy to use at a population level.

1.3 The costs of obesity

There are a range of costs associated with obesity at both the individual and societal level. At the individual level it is linked with a variety of health problems. Research suggests that individuals with obesity are at a greater risk of osteoarthritis, coronary heart disease, type 2 diabetes, certain types of cancer and psychological issues (Agha & Agha, 2017). Polycystic ovary syndrome is associated with obesity as are difficulties in male and female fertility (Townsend & Scriven, 2014).

Obesity not only has costs at the individual level, but it also results in indirect and direct costs to society. Estimates suggest that the NHS spent £6.1 billion in 2014-5 on overweight and obesity-related ill health and it is estimated that the overall cost of obesity to society is £27 billion (Public Health England, 2017). Obesity is also associated with specific workplace costs which will be discussed later. These findings highlight that it is critical to address obesity however, it is a complex disorder.

1.4 The causes of obesity

As stated by Townshend and Lake (2017, p. 38) "while the basic drivers of obesity are obvious (more energy consumed than expended), the causes are multifactorial and complex." Supporting this, in a 2007 report produced by the UK Government's Foresight Programme, an obesity system map highlighted 108 variables that directly or indirectly influence energy balance (Government Office for Science, 2007), thus, suggesting that there are a number of factors that impact on obesity (e.g. genes and environmental factors).

At the individual level, research has shown that there are more than 100 different candidate genes that are linked to BMI (Yeo, 2017). Estimates of heritability vary suggesting that genes will have a strong influence on whether or not an individual will have obesity. Yeo (2017) found results suggesting that the heritability of fat mass is between 30% and 70%, whereas in their review Llewellyn and Fildes (2017) reported that the heritability estimate was 73% but the range was 32% to 90%.

Environmental and social factors can also play a role in contributing to obesity. Research provides compelling evidence that social factors are influential causes of health (Braveman & Gottlieb, 2014). In addition, it has been proposed that we live in an obesogenic environment, where obesogenic "refers to the sum of the influences that promote obesity which is the net result of biological, behavioural, and environmental impacts acting through the mediators of energy intake and expenditure" (Townsend & Scriven, 2014, p. 70). For example, there has been a general shift in the environment to a more sedentary lifestyle; a recent study found that full time adults in the USA employed in sedentary occupations spent 11 hours engaging in sedentary behaviours in work and in leisure time (Tudor-Locke, Leonardi, Johnson & Katzmarzyk, 2011). In addition, cheaper and more processed food is readily available (Swinburn et al., 2011). One UK population-based study of 5958 adults demonstrated a relationship between the likelihood of being a person with obesity, higher intake of fast-food, BMI and fast-food outlet contact and educational level (Burgoine et al., 2016). Other factors may also play a role in the development of obesity, for example iatrogenic causes; such as antipsychotics, antidepressants, antihypertensives, hypoglycemic agents, oral contraceptives, corticosteroids and drugs (e.g. pregabalin and gabapentin) used to treat neuropathic pain (Haslam & Wittert, 2014).

Given that the 'obesogenic' environment is pervasive and not every individual is obese it is most likely that the increase in the prevalence of obesity is an interaction between our genes and the environment (the behavioural susceptibility theory; Llewellyn & Wardle, 2015). This interaction between genetic risk and environmental exposure is mediated by differences in appetite which are genetically determined (Llewellyn & Wardle, 2015).

1.5 Defining obesity stigma

One element of obesity that is less frequently discussed is obesity stigma or weight stigma. Goffman defined stigma as an "attribute that is deeply discrediting" (Goffman, 1963/1990, p. 13) and it is proposed that it is a combination of prejudice (emotional), stereotypes (mental) and discrimination (behavioural) biases (Fiske, 2020). Specifically, obesity or weight stigma has been defined as "negative weight-related attitudes and beliefs that are manifested by stereotypes, rejection and prejudice towards individuals because they are overweight or obese" (Puhl, Moss-Racusin, Schwartz & Brownell, 2008 p. 347). More recently Tomiyama et al. (2018, p.1) defined it as "the social rejection and devaluation that accrues to those who do not comply with prevailing social norms of adequate body weight and shape." Individuals can also experience internalised weight stigma where they direct stigma and anti-fat attitudes towards themselves, and blame themselves for the societal devaluation and stigmatisation they experience (Puhl, Himmelstein, Gorin & Suh, 2017). Obesity stigma is one of the outcomes of diet culture which can be defined as a belief system that places a strong value on thinness, this thinness is considered to represent health and morality, subsequently this belief system emphasises that our bodies are flawed and must be corrected, for example through teeth whitening, more exercise, liposuction etc. (Saunt & West, 2019).

One example of the pervasiveness of obesity stigma can be found in the use of language. For example, the increased prevalence of obesity is often referred to as the 'obesity epidemic' however, the use of the word 'epidemic' refers to infectious diseases. This type of language infers that obesity is something that can be caught from others which is likely to increase social distance (Nutter et al., 2016).

As noted in the recent British Psychological Society (BPS) report - Psychological perspectives on obesity: Addressing policy, practice and research priorities - there are many

discussions about the correct language that should be used when discussing weight and research and it can be difficult for those working in this field (British Psychological Society, 2019). Where possible this thesis endeavours to use first-person language i.e. 'an individual with obesity.' It is also important to note that, in reflection of the body of literature, within this thesis, the terms weight bias, obesity stigma and weight stigma will be used interchangeably.

1.6 The impact of obesity stigma

Although weight stigma has been postulated as a way of encouraging individuals with overweight and obesity to lose weight, research has consistently demonstrated its negative impact. A recent systematic review showed that weight stigma is associated with a range of negative psychological and physical health outcomes (Wu & Berry, 2018). Supporting this, research has examined the adverse impact of weight stigma - both stigma demonstrated by others and internalised weight stigma - and a variety of negative consequences have been identified. Hatzenbuehler, Keyes and Hasin (2009) found that perceived weight discrimination was associated with a greater likelihood of psychiatric diagnoses – individuals who perceive that they have been discriminated against because of their weight were 2.41 times more likely to have a mood or anxiety disorder diagnosis. Research has also shown that weight stigma is associated with cortisol and oxidative stress independent of adiposity (Tomiyama et al., 2014). Jackson, Beeken and Wardle (2014) found evidence to suggest that weight discrimination is associated with increases in weight and the onset of obesity. Disconcertingly, research has also found that individuals who stated that they had experienced weight discrimination were 60% more likely to die, independent of BMI (Sutin, Stephan & Terracciano, 2015).

A number of mechanisms may explain the relationship between obesity stigma and the adverse consequences aforementioned. Tomiyama (2014) proposed in her Cyclic Obesity/Weight Based Stigma (COBWEBS) model that weight stigma is a stressor which results eventually in weight gain via the pathways of increased eating and cortisol. A variety of study designs have been applied to explore the associations between weight stigma and eating behaviour. Recently, Vartanian and Porter (2016) conducted a literature review and concluded that the evidence suggests that there is a relationship between weight stigma and unhealthy eating patterns, but further research is required to establish whether this

relationship is causal. Stigma is also associated with levels of physical activity. Jackson and Steptoe (2017) showed that individuals who perceived that they have experienced weight discrimination were less physically active compared to those who did not report perceived weight discrimination; this was independent of BMI. Additionally, research has also shown the impact of intersectionality; Makowski, Kim, Luck-Sikorski and von dem Knesebeck (2019) found that obesity stigma can worsen predating inequalities resulting in greater disadvantage. For example, the results from their vignette studies showed that obesity and low socioeconomic status were associated with higher fat phobia.

Research has also identified the key role that internalisation of negative attitudes plays; Vartanian and Novak (2011) examined this role in individuals who identify as overweight or obese. They found that amongst those high in internalisation of societal attitudes toward appearance and anti-fat attitudes, experience of weight stigma was associated with higher avoidance of exercise. Internalised stigma may also play a role in weight loss maintenance; Puhl, Quinn, Weisz and Suh (2017) found that an increase in internalised weight stigma was associated with a 28% decrease in likelihood of maintaining weight loss. Together, these findings show the variety of adverse consequences weight stigma has on individuals - psychological, physiological and behavioural - including those that are obesogenic. Tomiyama et al. (2018) recently concluded "findings suggest that stigma attached to being 'overweight' is a significant yet unrecognized agent in the causal pathway from weight status to health" (Tomiyama et al., 2018, p. 124).

1.7 Explaining obesity stigma

Attribution theory is often used as a theory for explaining weight bias. Attribution theory (Heider, 1958) hypothesises that individuals look for causes to explain outcomes and these can be internal causes or external causes. In the context of obesity stigma, the obesity is attributed to causes that the individual can control. This idea of controllability links with the typical stereotypes associated with obesity e.g. lack of will power and low self-discipline (Puhl & Heuer, 2009). Supporting this, in the 2016 British Social Attitudes towards obesity survey (NatCen Social Research, 2016), results showed that 28% of people agreed that 'most very overweight people are lazy' and that 53% agreed 'most very overweight people could lose weight if they tried.' These results demonstrate that there is an assumption obesity relates to a lack of willpower which is linked with the underlying assumption of many that it

is a problem within an individual's control. Healthism may also contribute to obesity stigma; Saunt and West define healthism as:

> The idea that health is a moral responsibility, resulting in an unparalleled focus on health and the belief that poor health is a personal failing. Healthism fails to consider the complexities of each individual body, genetically as well as socially and economically, putting the emphasis firmly on the individual responsibility (2019, p. 194).

Key concepts include the emphasis on individual responsibility and that judgements on people's worth are made which are based on their health (Crawford, 1980). In this context health acquires moral qualities where previously it was morally neutral, resulting in unhealthy behaviour being seen as 'bad' behaviour. It is proposed that the educational approach to health promotion where individuals are empowered to make lifestyle change may be contributing to this moralisation. This is because these type of health promotion initiatives "increase the view that people *can* and *should* adopt healthy behaviours, and in doing so, reinforce (misconceived) beliefs regarding people's responsibility for their health-related behaviour and subsequent (ill) health, and foster a moralising discourse of health-related behaviours" (Brown, 2018, p. 999).

Thin-ideal internalisation may also play a role in weight bias, this "refers to the extent to which an individual cognitively "buys into" socially defined ideals of attractiveness and engages in behaviours designed to produce an approximation of these ideals" (Thompson & Stice, 2001, p. 181). Thin-ideal internalisation is not only believed to be a risk for disordered eating (Thompson & Stice, 2001) but also has been associated with anti-fat attitudes (Carels & Musher-Eizenman, 2010).

Many of these views (e.g. thin-ideal internalisation, healthism and the focus on individual control) are perpetuated through the media. Images of women used in the media often show very thin women who are an unrealistic weight and research suggests that these images displaying the thin-ideal are associated with body dissatisfaction and disordered eating (Grabe, Ward & Hyde, 2008). Research also suggests that in a variety of media sources, individuals with overweight and obesity are often depicted in a stigmatising way (Ata & Thompson, 2010). Furthermore, much of the media coverage emphasises the role of the individual as both the cause and the solution to the problem (Kim & Willis, 2007).

However, only focusing on individual level behaviour as a solution to obesity is a very reductionist perspective.

1.8 Contextualising obesity stigma

To understand obesity stigma, it is also important to contextualise the current thin ideal seen in Western culture. Within the Western world the ideal body shape for women is thin with big breasts (Saraceni & Russell-Mayhew, 2007) and for men it is muscular and lean (Leit, Pope & Gray, 2001). However different cultures demonstrate different ideal body image preferences and the thin ideal image seen today was not always the ideal image. Prior to the 19th century, the ideal female body image was full bodied and fat (Calogero, Boroughs & Thompson, 2007). During the 19th century there was a move to a new ideal which included wearing corsets to create a specific ideal which reduced the fuller figure (Calogero, Boroughs & Thompson, 2007). Changes to the ideal have occurred throughout history, for example, the large bust and hourglass shape seen in the 1940s, 50s and 60s. Between 1959 and 1978 there was a decrease in average, weight, bust and hip size but an increase in height and waist size. Research during the nineties found that 69% of Playboy centrefold models and 60% of Miss America participants weighed 15% or more less than they should for their height (Wiseman et al., 1992). The female ideal nowadays is thin, toned, has long legs, perfect skin and big breasts (Calogero et al., 2007). This unattainable ideal is highlighted by Harrison (2003) who notes that the ideal American woman as proposed by WonderBra "simultaneously wears a size 4 (hips), a size 2 (waist), and a size 10 (bust)" (Harrison, 2003, p. 255). This research shows that representations of the ideal weight have changed over the course of history.

Ideal body weight has changed over the course of history and also varies by culture with different cultures displaying different preferences for the ideal body shape. For example, research has shown differences in the preferences of male and female Ugandan students compared to male and female British students with Ugandan students preferring heavier figures and rating them as more attractive (Furnham & Baguma, 1994). It is proposed that cross-cultural differences can be explained by the relationship between resource security and body weight ideals (Anderson, Crawford, Nadreau & Lindberg, 1992); for example, where resources are scarce there will be a preference for heavier body weight ideals. Supporting this, Swami, Henderson, Custance and Tovee (2011) investigated attractiveness amongst men in Bali, Lombok and Britain; they found that compared to the other participants men from

Lombok rated a heavier female as more attractive suggesting that body image ideals are associated with socioeconomic status (SES).

It is also recognised that different social categories (e.g. gender, race) can interact which can result in various advantages or disadvantages; intersectionality is the study of how these different social categories interact (Makowski, Kim, Luck-Sikorski & von dem Knesebeck, 2019). It is proposed that having multiple social categories may interact to produce cumulative effects, alternatively the categories can interact to act as a buffer (Makowski et al., 2019; Himmelstein, Puhl & Quinn, 2017). Limited research has been conducted in the context of weight stigma and the results have been mixed (Makowski et al., 2019).

Using an experimental design, Puhl, Luedicke and Heuer (2013), found that African American females with obesity were rated higher on dislike and social distance compared to Caucasian females with obesity but that there were no significant differences between male and female images. In their self-report study Himmelstein et al. (2017) found that there were no effects of gender or race in relation to weight stigma suggesting that "weight stigma is not simply a white women's issue" (Himmelstein et al., 2017 p. 427). However, the results did show there were differences in weight bias internalisation, white men and women reported higher weight bias internalisation than black men and women. More recently, Makowski et al. (2019) examined socioeconomic status, gender and obesity stigma. The results from their vignette studies showed that obesity and low socioeconomic status were associated with higher fat phobia and participants wanting more social distance. The results also showed that participants reacted to men with obesity with more negative emotions and social distance. This is of interest as traditionally research has suggested that women are more likely to experience obesity stigma than men (e.g. Fikkan & Rothblum, 2012; Roehling et al., 2007; Sattler, Deane, Tapsell & Kelly, 2018) however, recent research has proposed that may be because weight stigma is experienced at different body weight categories (Himmelstein, Puhl & Quinn, 2018). Himmelstein et al. (2018) found results to suggest that for men the weight stigma relationship is U-shaped whereas for women this relationship is linear. Further research is required to explore intersectionality in the context of weight stigma.

1.9 Obesity and the workplace

Obesity is an important workplace concern. First, work itself can be a risk to obesity, depending on the way work is organised; for example, shift work is associated with a greater likelihood of overweight or obesity (Liu et al., 2018). Additionally, as discussed previously, occupations are becoming increasingly sedentary which is a risk factor for obesity. Second, obesity can impact on work outcomes, for example, some research suggests that individuals with overweight and obesity may be less productive (Goettler, Grosse & Sonntag, 2017) and that there are links between obesity and absenteeism and presenteeism (Bustillos, Vargas & Gomero-Cuadra, 2015). Third, there may be indirect costs due to the stigma associated with obesity. For example, if employees with obesity are discriminated against at the point of selection (e.g. Flint et al., 2016) this may lead to a reduction in the talent pool from which the organisation can draw and loss of employment opportunities for individuals with obesity. The workplace is a good environment for interventions as individuals spend almost two thirds of their waking hours at work (Batt, 2009; Frase & Gornick, 2013). Together these factors highlight the need for workplaces to consider both the role of obesity and obesity stigma.

1.10 The costs associated with obesity in the workplace

Studies suggest there are costs associated with obesity in the workplace. For example, Public Health England (2015) reported that in 2014 there were 16 million days of sickness absence reported due to obesity. Supporting this, Bustillos et al. (2015) found a relationship between obesity and both absenteeism and presenteeism. Ricci and Chee (2005) found that approximately 10% of workers with obesity reported health-related sickness absence, however approximately 40% reported a decrease in their performance at work as a result of health-related issues. The National Institute for Clinical Excellence (2013) reported that individuals with obesity are less likely to be in employment compared to those of a healthy weight. Supporting this, Black (2016) reported that one in four working age adults are adults with obesity and although 68% of adults with obesity are in employment, 70% of adults with an average weight are in employment. This shows a 2 percentage point difference, however this rises to a 10 percentage point difference when comparing individuals with severe obesity (Black, 2016). Goettler et al. (2017) conducted a systematic review examining the indirect costs of overweight and obesity, specifically focusing on productivity loss. They concluded that individuals with obesity had higher absenteeism and were less productive, which resulted in higher costs. However, they highlighted various limitations of the research conducted, for

example, the variety of measures used to assess indirect costs and the different methodologies.

1.11 The impact of work on obesity

It is not possible to discuss obesity and the workplace without considering elements of work which may impact on obesity. A number of factors may impact on obesity: i) shift work, ii) long working hours iii) the number of hours spent sitting at work, and iv) psychosocial factors. Firstly, Liu et al. (2018), in their recent systematic review, found that shift work was associated with a greater likelihood of overweight or obesity; specifically, the increased risk of overweight was 25% and the increased risk of obesity was 17%. One proposed explanation for why this risk exists is the impact of shift work on circadian rhythms (James, Honn, Gaddameedhi & Van Dongen, 2017) and another is changes in eating patterns (Gifkins, Johnston & Loudoun, 2018). Secondly, research suggests that there is an association between obesity and long working hours; Kim et al. (2016) found that amongst women there was a significant relationship between increased BMI and body fat and being 50 or older and working long hours. Thirdly, another element of work that may impact on obesity is the high number of hours workers spend sitting; Lin, Courtney, Lombardi and Verma (2015) found that there was a significant relationship between longer sitting time and higher BMI. Fourthly, in one study psychosocial factors (high job demands and low social support) at work were independently associated with obesity in men (Jaaskelainen et al., 2015). However, other research has not found this independent association between psychosocial factors and obesity (Rosengren et al., 2015). Overall, the findings suggest that the workplace is likely to affect weight gain in numerous ways through a variety of mechanisms.

1.12 Actions organisations are taking to address obesity at work

Due to the high and increasing prevalence of obesity, a number of solutions have been suggested to help support those who wish to lose weight. The workplace has been proposed as a good environment in which to implement interventions due to the high number of easily accessible people, the potential for impact and the number of hours that individuals spend at the workplace each week (Batt, 2009; Rigsby, Gropper & Gropper, 2009). Implementing interventions in the workplace will also be advantageous for both the individual employee as

well as the employer (Shrestha, Pedisic, Neil-Sztramko, Kukkonen-Harjula & Hermans, 2016) and by implementing interventions in the workplace there is also the potential for a wider impact to be had by employees influencing family and friends. Furthermore, statistics suggest that 50% of employees would like weight management programmes to be offered in the workplace (Workforce, 2014) and implementing programmes in the workplace can also address one of the frequently cited barriers to healthy lifestyles which is lack of time (Dugdill, Brettle, Hulme, McCluskey & Long, 2008).

Organisations are increasingly focusing on wellbeing using a variety of approaches; the most common being through building awareness and running health promotion interventions. Examples of awareness events include organising a lunch and learn session with a dietitian or nutritionist or organising events during national campaigns such as the British Nutrition Foundation Healthy Eating Week. Regarding health promotion interventions, Morgan et al. (2011) developed an intervention for obese and overweight male shift workers, using Bandura's Social Cognitive Theory (Bandura, 1986), called the Workplace POWER (WP) program. In this program participants - male shift workers with overweight and obesity - received an information session, access to a weight loss website and weight loss resources, and there was also a group based financial incentive. Results suggested that there were significant changes and clinically significant weight loss occurred, which had a positive impact on health. Commercial weight programmes have also been applied in the context of the workplace. Barber et al. (2015) examined the applicability of Slimming World within the workplace. After 12 weeks, the number of participants reporting that their health affected their work, social life and daily activities had decreased. The average weight loss was close to clinical significance and suggests that the intervention has the potential to have a wide-ranging impact as it was close to the percentage associated with numerous improvements such as reduced blood pressure. However, weight loss was only measured during the 12-week intervention at weekly weigh-ins, so it is not possible to establish how long the weight loss continued. At the organisational level, a pilot study has been conducted to examine the effect of a portion size reduction intervention. Although neither weight nor BMI were measured as outcomes, the results, from the pilot study, suggest this is a feasible intervention which has the potential to be effective (Hollands et al., 2018).

Despite being extolled as a way of supporting individuals to lose weight, workplace health promotion programmes may have unintended stigmatising effects. In an experimental

study Powroznik (2017) found that employees with overweight and obesity received lower ratings and hiring recommendations in organisations with health promotion programmes. In their research Tauber, Mulder and Flint (2018) demonstrated that workplace health promotion programmes that highlighted individual responsibility were associated with greater weight-based discrimination; these programmes also were associated with individuals with obesity feeling more responsible for their health but feeling weight was less controllable. Additionally, the organisational health promotion initiatives and events are not addressing stigma, which research shows has a negative impact on both psychological and physical health (e.g. Wu & Berry, 2018) or social determinants of health (e.g. education, income and educational class) which research has shown are associated with obesity (Faeh, Braun, & Bopp, 2011). The majority of attempts to address obesity in the workplace are directed at tackling obesity itself. However, tackling obesity itself is only one part of the solution and it is not only obesity itself that presents a challenge. Employees and employers need to also consider the impact of obesity stigma.

It is also important to acknowledge that discrimination will affect individuals differently. Carr and Friedman (2005) found that there was a greater likelihood of professionals who were very obese describing experiences of job discrimination and high levels of daily discrimination compared to very obese non-professionals and thinner professionals. This supports the idea that stigma is a very social construct that varies dependent on the social context (Archer, 1985). Furthermore, Carr and Friedman (2005) found that people with obesity with a BMI of 35-39.9 and 40 or more displayed lower self-acceptance whereas people with obesity with a BMI of 30-34.9 showed similar self-acceptance to average weight individuals. It is crucial to note the existence of within-in group variability which is sometimes ignored in terms of understanding how stigma affects individuals differently (Link & Phelan, 2001).

1.13 Prevalence of obesity stigma

Supporting the claims regarding the pervasiveness of weight stigma, Andreyeva, Puhl and Brownell (2008) reported that amongst US adults the prevalence of weight/height discrimination increased by 66% between 1995-1996 and 2004-2006. Research has also demonstrated that weight stigma exists in a variety of contexts including healthcare and employment settings (e.g. Phelan et al., 2015; Rudolph, Wells, Weller & Baltes, 2009). For

example, examining weight stigma in healthcare, a recent review suggests that the prevalence of anti-fat attitudes is high in many healthcare providers and may impact on communication, level of care, and respect; subsequently this may result in individuals with overweight or obesity being less likely to seek out medical treatment and experiencing higher stress (Phelan et al., 2015).

Focusing on the workplace, a variety of types of research have been used to explore obesity stigma in the workplace, for example, surveys, population-based studies and experimental studies. Using data from the National Survey of Midlife Development in the United States (MIDUS) Roehling, Roehling and Pichler (2007) found that individuals with obesity were 37 times more likely to report weight related employment discrimination whereas individuals with severe obesity were 100 times more likely. This research also suggested differences in gender exist as women were 16 times more likely to report weight related employment discrimination (Roehling et al., 2007). Supporting this, Caliendo and Lee (2013) found results to suggest that during the transition from unemployment to employment women with obesity experienced discrimination; these findings were not seen amongst men and women with overweight or men with obesity. Puhl, Andreyeva and Brownell (2008) found that amongst participants who reported weight/height discrimination, they had experienced this in the context of employment on average four times in their life. Brunello and D'Hombres (2007) found that a 10% increase in average BMI was associated with a decrease in hourly pay of 1.9% amongst men and 3.3% amongst women. In an experimental study in the context of recruitment, Flint et al. (2016) found that candidates with obesity were perceived to be less suitable than average weight candidates. The findings suggest that obesity stigma in the workplace is demonstrated in a variety of ways.

1.14 Limitations of the current literature

Although there is a growing body of evidence demonstrating obesity stigma in the workplace exists there are a number of limitations (e.g. theoretical, methodological and practical) associated with the existing literature.

Attribution theory (Heider, 1958) is one of the theories most often applied in the context of obesity stigma and consequently there is a lot of empirical evidence to support its application (Puhl & Brownell, 2003). One of the strengths of the theory is that it can explain

why individuals with obesity are perceived to have certain characteristics (e.g. laziness) however, one of its limitations is that it cannot explain why individuals initially have these negative perceptions towards individuals with obesity and the associated negative feelings (van Leeuwen, Hunt & Park, 2015). For example, the intergroup emotions (emotions an individual feels towards a social group) most frequently associated with obesity stigma are 'moral emotions' such as disgust, contempt and anger (Hutcherson & Gross, 2011; Rozin, Lowery, Imada & Haidt, 1999). Another limitation is that interventions designed to manipulate beliefs about the causes and controllability of obesity (i.e. designed using attribution theory) have demonstrated mixed results (Danielsdottir, O'Brien & Ciao, 2010). An alternative theory such as the pathogen avoidance mechanism (Park, Schaller & Crandall, 2007) can help to address some of the limitations of attribution theory. This hypothesis proposes that individuals want to avoid those with physical abnormalities because these abnormalities may be reflective of infection, as a consequence when individuals see certain bodily cues this triggers disgust and research has demonstrated support for the role of disgust in obesity stigma (e.g. Vartanian, Trewartha & Vanman, 2016).

There are also methodological limitations of the current literature. Surveys are often used to measure weight bias and can enable researchers to gather useful data on stereotypes and prejudice, however there is limited research that has measured actual behaviour, and these measures may not always be truthful (Ruggs, King, Hebl & Fitzsimmons, 2010). Additionally, surveys are usually self-report which may result in social desirability bias (Ruggs et al., 2010). Much of the research is US centric which raises questions about the generalisability of these findings; especially as research has found that the attribution-value model of anti-fat prejudice may be more applicable in individualist cultures compared to collectivist cultures (Crandall et al., 2001). Another limitation of the current literature is the wide variety of measures used to assess obesity stigma. Many of the measures used to assess hypothetical behaviour are bespoke measures (e.g. Giel et al., 2012). Additionally, a range of terminology is used which is not only inconsistent but also terminology may have an unintended impact on participant results (Ruggs et al., 2010). Many of the scales were developed prior to the discussions about terminology preference and in some cases the terminology used could be classified as stigmatising language which could therefore be contributing to the normalisation of weight stigma (Lacroix et al., 2017). Furthermore, in their systematic review of self-report questionnaires, Lacroix et al. (2017) identified that

many of the scales used to measure weight bias were unclear about the theory used to develop the scale.

There are also practical limitations associated with this literature. Due to the nature of the topic, and the difficulties of manipulating the variable weight within a field study, many of the studies are hypothetical however this has implications with regards to the external validity (Ruggs et al., 2010). There is also a lot more research that has been conducted from the perspective of the stigmatiser rather than the individual who is stigmatised (Ruggs et al., 2010). As a result, we know relatively little about the experiences of those who are stigmatised, and the impact felt and realised. Additionally, research examining approaches to decrease obesity stigma has often excluded the perspectives of individuals with obesity (Puhl, Himmelstein, Gorin & Suh, 2017). There is a need to address these limitations if we are to fully understand the experience of obesity stigma in the workplace and how best to prevent it.

1.15 Thesis structure

This thesis is comprised of seven chapters (see Figure 1.1). Chapter 1 explores obesity and obesity stigma more broadly to set the context of the thesis and proposes a justification for why further research into obesity stigma in the workplace is required. Chapter 2 explains the rationale for choosing a mixed methods research design. Chapter 3 explores the theoretical framework of this thesis and the lens through which this thesis is examined – attribution theory. In Chapter 4 the first study of the thesis is described – a systematic literature review of obesity stigma at work. The available evidence for obesity stigma in the workplace is examined and the stages of the employment cycle in which obesity stigma has been examined are identified. The systematic literature review informed the design of both study 2 and study 3. In chapter 5 the second study of the thesis is presented – a vignette study among UK nursing managers which experimentally examined weight bias in decisions relating to disciplinary actions. Explicit measures of weight bias were also assessed. Chapter 6 presents study 3, a qualitative cross-sectional study, which aimed to understand the experience of obesity stigma in UK workplaces including identifying the factors that impact on obesity stigma at work and providing ideas for how obesity stigma at work can be overcome. Finally, chapter 7 draws together the findings from each study in addition to highlighting the limitations, implications of this research, contribution to knowledge and final conclusions.

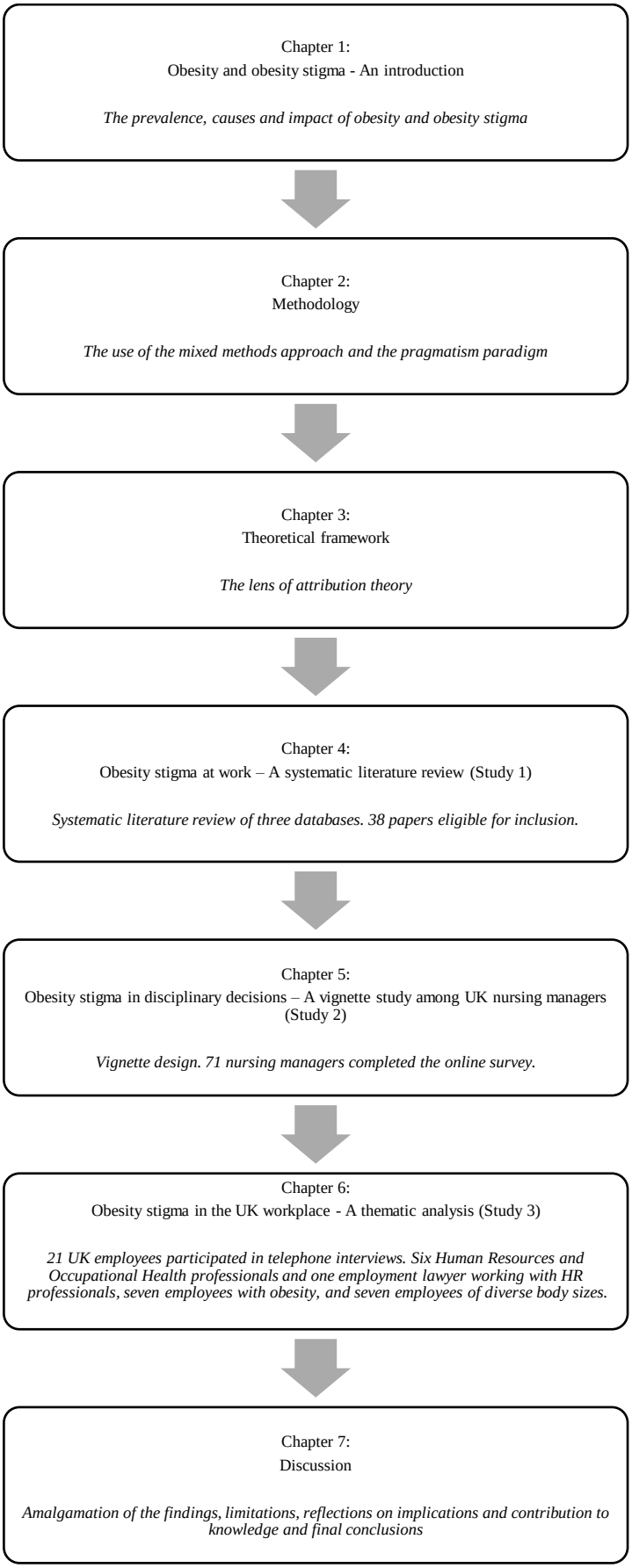

Figure 1.1: A schematic overview of the thesis

1.16 Aims and research questions

The aim of this thesis was to examine obesity stigma in the workplace, both the evidence for, and experience of obesity stigma.

The aims of each of the three studies are provided below.

Study 1: Obesity stigma at work – A systematic literature review

The systematic review aimed to:

1) Examine the available evidence for obesity stigma in the workplace
2) Identify the stages of the employment cycle in which obesity stigma has been examined
3) Identify the key mechanisms impacting upon obesity stigma

Study 2: Obesity stigma in disciplinary decisions – A vignette study among UK nursing managers

This vignette study aimed to:

1) Examine weight bias in decisions relating to disciplinary actions amongst nursing managers
2) Examine both implicit and explicit bias
3) Examine associations between dependent variables (e.g. fat phobia and beliefs about the controllability of obesity)

Study 3: Obesity stigma in the UK workplace – A thematic analysis

This cross-sectional qualitative study aimed to:

1) Understand the experience of obesity stigma in UK workplaces
2) Identify the factors that impact on obesity stigma in the workplace
3) Offer insights into how obesity stigma at work can be overcome to inform the development of effective evidence-based interventions to address obesity stigma

The overarching research question that this thesis aimed to address was: What does obesity stigma in the workplace look like?

1.17 Reflexive positioning

Within the obesity stigma field different perspectives to research are taken, two of these are a weight centric approach and the Health At Every Size (HAES) approach. In their article, Nutter et al. (2016) state some of the differences, for example the associated language, the theoretical position and the outcomes of weight stigma which are examined. Within the weight-centric approach, the language tends to be obesity, person with obesity, obese person, theoretical lenses that tend to be used are attribution theory, thin-ideal internalisation and social comparison theory and outcomes include anxiety, stress, depression etc. In comparison the HAES approach is associated with the terminology – obese/fat, fat person, obese person, the theoretical approach tends to be critical analysis of "healthism" and outcomes include reinforcing and privileging thinness, decontextualizing health and avoidance of health care (Nutter et al., 2016).

The field of obesity and obesity stigma can be a complex one to navigate. Personally, I position myself somewhere in the middle of the weight centric and weight neutral approach. I believe that there are limitations associated with the weight centric approach particularly as research has shown the difficulties associated with weight loss maintenance. For example, Weiss, Galuska, Khan, Gillespie and Serdula (2007) found that 33.5% of participants who had recently experienced substantial weight loss had gained more than 5% of their weight within one year. In addition, research has shown that health professionals and researchers who specialise in obesity demonstrate anti-fat bias (Schwartz, Chambliss, Brownell, Blair & Billington, 2003) which is likely to have serious implications for those seeking weight loss management. Especially given that research suggests a relationship between increased BMI and avoiding healthcare due to the impact of stigma (Drury & Louis, 2002). In contrast, the weight neutral approach HAES focuses on health promotion rather than weight management (Bacon & Aphramor, 2011) and there is an emphasis on body acceptance of all body shapes and sizes (Penney & Kirk, 2015). There are a number of ideas traditionally associated with weight management that this approach challenges, for example that body fat is associated with mortality risk, that individuals who are strongminded can lose weight and maintain the weight loss through diet and exercise, that the only method for people with obesity to improve their health is to lose weight and that the economic costs of obesity can be improved by spending on treatment and prevention (Bacon & Aphramor, 2011). Research provides support for the benefits of the HAES approach and I agree that it has many positive implications. However, one of the issues is that the approach may not be suitable for those

who are genetically predisposed to obesity, and the approach fails to recognise the positive impact on health of 5-10% weight loss (Penney & Kirk, 2015). Whilst there are strengths and sound underpinnings of both approaches, I feel that what is clear is that neither approach alone can address the gap between the scientific knowledge of obesity and the public narrative of obesity (Rubino et al., 2020) that currently exists. Working to narrow this gap is one of the ways in which obesity stigma can be addressed. Whilst acknowledging the two contrasting positions the approach I have taken in this thesis aims to navigate the space in the middle and in so doing, aims to help to create a more equitable environment and help to improve health habits.

Chapter 2: Methodology

Broadly, this thesis set out to examine obesity stigma in the workplace. Research suggests obesity stigma is highly prevalent, however further research is required because limited research has been conducted within the workplace and within the UK context. Additionally, to design effective interventions to address obesity stigma further research is needed to understand the experiences of obesity stigma and how and when it is occurring within the workplace. A mixed methods approach was chosen to examine obesity stigma in the UK workplace. Initially, a systematic literature review was carried out to better understand the existing literature in this field and the results of the systematic literature review were used to inform the design of study 2 and study 3.

2.1 Using a mixed methods approach

This thesis aimed to draw together a broader understanding of the evidence and experience of obesity stigma in the workplace. A mixed methods approach was identified as the most suitable approach to achieve this aim. In their article, Johnson, Onwuegbuzie and Turner (2007) invited leaders in the field of mixed methods to define mixed methods which resulted in 19 answers. As this suggests, over the years a variety of definitions of mixed methods have been proposed which focus on different elements, for example, the methods, the philosophy and core characteristics (Creswell & Plano Clark, 2017). In their most recent book, Creswell and Plano Clark (2017) use a definition of core characteristics which focuses on methods, research design and philosophy orientation. They state that research designs are provided which justify the reason for the design and the study procedure, information about the associated theory and philosophy is discussed and qualitative and quantitative data is gathered, analysed and mixed (Creswell & Plano Clark, 2017). Recently, there has been an increase in mixed methods research in a number of fields, particularly social, behavioural and health science (Creswell & Plano Clark, 2017).

This mixed methods thesis used the definition provided by Creswell and Plano Clark (2017). This approach was chosen to study obesity stigma in the UK workplace for a number of reasons. Firstly, using a mixed methods approach enables a broader understanding of the research topic to be gained than would be available through distinct qualitative and quantitative findings (Creswell & Plano Clark, 2017) especially as the researcher is not

limited by one method or approach (Johnson & Onwuegbuzie, 2004). Secondly, limited research into obesity stigma in UK workplaces has previously been conducted; therefore, it is beneficial to improve the knowledge of this area using a range of perspectives rather than just one (Andrew & Halcomb, 2011). Thirdly, one of the advantages of using mixed methods research is that it minimises the weaknesses encountered when solely using a quantitative or qualitative method as the strengths of both approaches balance the weaknesses (Creswell & Plano Clark, 2017).

However, the mixed methods approach also has its own weaknesses. For example, it can be difficult to undertake due to the time, resources and understanding required to implement a mixed methods approach (Johnson & Onwuegbuzie, 2004). Furthermore, qualitative and quantitative research are generally associated with two different epistemological approaches. Qualitative research is usually associated with constructionism whereas quantitative research is usually associated with postpositivism (Creswell & Plano Clark, 2017). Some researchers have identified this as a criticism of mixed methods (Bryman, 2012). However, others have identified this as a strength of mixed methods research because this means that the best appropriate methods and associated philosophical assumptions can be taken to address research questions thus allowing more flexibility (Johnson & Onwuegbuzie, 2004).

2.2 Philosophical assumptions

Kuhn defined a paradigm as a set of beliefs and principles collectively held by scientists that relate to problem solving (Kuhn, 1970). Guba (1990) proposed that these can be typified by their ontology, epistemology and methodology. More recently, paradigms have broadly been defined as "shared belief systems that influence the kinds of knowledge researchers seek and how they interpret the evidence they collect" (Morgan, 2007, p. 50). However, there are different ways of conceptualising paradigms; Morgan (2007) identified four which vary on their level of generality. The version that is most commonly used within social science is the one that views paradigms as epistemological stances (Morgan, 2007). Creswell and Plano Clark (2017) state that there are four "world views" or paradigms that can be used by researchers: postpositivism, constructivism, transformative and pragmatism.

Pragmatism originated from Peirce, James, Mead and Dewey (Cherryholmes, 1992). The pragmatism paradigm "accepts, philosophically, that there are singular and multiple realities that are open to empirical inquiry and orients itself toward solving practical problems in the "real world"" (Feilzer, 2010, p. 8). The rationale of the pragmatist position is that for a comprehensive study using solely quantitative or qualitative methods is inadequate (McEvoy & Richards, 2006). Subsequently, both methods should be employed together to measure the different elements of the research topic (Feilzer, 2010). Adopting this paradigm enables flexibility in the chosen methods because as Greene and Hall (2010, p. 132) state "pragmatic inquirers may select any method based on its appropriateness to the situation at hand." Pragmatism is a commonly used worldview within mixed methods research (Teddlie & Tashakkori, 2010).

The application of pragmatism within the field of social research has been critiqued for focusing on the practical rather than the philosophical elements of pragmatism (Morgan, 2014). It is therefore useful to consider Dewey's work (1920/2008, 1925/2008) which aimed to focus philosophy not just on abstract ideas but also human experience. In his recent article, Morgan asserts that Dewey's stance is that "experiences always involve a process of interpretation. Beliefs must be interpreted to generate action, and actions must be interpreted to generate beliefs" (Morgan, 2014, p. 1046). Morgan therefore concluded that within pragmatism, research is a human experience which is grounded in the beliefs and actions of the researchers (Morgan, 2014).

This thesis therefore took a mixed methods approach using a pragmatism paradigm. The pragmatic philosophy enabled flexibility as different approaches could be taken to best address the different research questions of this study.

2.3 The research design

The approach taken was a fixed mixed methods design as the use of quantitative and qualitative research was decided at the beginning of the study (Creswell & Plano Clark, 2017). A typology-based approach was taken (Creswell & Plano Clark, 2017) and the design was sequential. This was used as a guiding framework to aid in making decisions about the design. The design was sequential as the two research phases were conducted at discrete time periods with the findings from the first quantitative research phase informing the second

qualitative research phase. The systematic literature review that was initially conducted informed the design of both study 2 and study 3. In the final chapter of the thesis, the findings from all three studies are mixed enabling conclusions to be drawn from a synthesis of all the results.

To design a mixed methods study another four important decisions needed to be taken. These were: "i) the level of interaction between the strands, ii) the relative priority of the strands iii) the timing of the strands and iv) the procedures for mixing the strands" (Creswell & Plano Clark, 2011, p. 64). The level of interaction was independent as the strands were only mixed at the end of the research when drawing the final inferences from the overall thesis. Both the quantitative research and the qualitative research had equal priority in addressing the research aims identified at the beginning of the research process. The timing of the strands was sequential as the quantitative data was collected and analysed prior to the collection and analysis of the qualitative data. The quantitative and qualitative strands were mixed during interpretation. Thus, combining the results from the two strands at the final stage and synthesising the results in the discussion chapter.

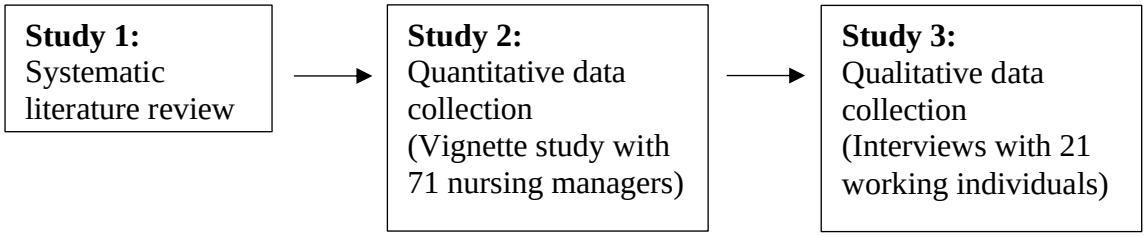

Figure 2.1: Diagram of research studies

2.4 Ethics

Research was carried out in adherence to the British Psychological Society's Code of Human Research Ethics and the Health and Care Professions Council's Standards of Conduct, Performance and Ethics. Ethical clearance was also provided by the Research Ethics Committee of the Faculty of Business and Social Sciences at Kingston University London. The research was compliant with the requirements of the Research Ethics Committee. In addition, all the data was collected, processed and stored in accordance with General Data Protection Regulation (GDPR). For example, the data was processed lawfully,

collected for specific purposes, informed consent was provided, and confidentiality was maintained.

Chapter 3: Theoretical framework

Goffman defined stigma as an "attribute that is deeply discrediting" (Goffman, 1963/1990, p. 13) and stated that "an attribute that stigmatises one type of possessor can confirm the usualness of another, and therefore is neither creditable nor discreditable as a thing in itself" (Goffman, 1963/1990, p. 13). Furthermore, he explained that "a stigma, then, is really a special kind of relationship between attribute and stereotype" (Goffman, 1963/1990, p. 14) and proposed that there are three different types of stigma. Firstly, physical deformities, secondly, blemishes of individual character (e.g. mental disorder and alcoholism) and thirdly, tribal stigma of race, nation, and religion. Gilbert, Pelham and Krull (1988) propose that in social situations when individuals perceive people and make attributions there are three key processes that occur. Firstly, categorisation in which individuals identify what the person is doing (i.e. the behaviour), secondly, characterisation in which judgments about an individual's character are made based on the behaviour and thirdly, correction in which the judgements may be modified based on the situational circumstances. Goffman's work on stigma resulted in a proliferation of research into stigma in addition to a variety of new definitions being developed. However, the literature has been criticised due to the disparity in definitions of stigma used in research (Link & Phelan, 2001). This is partly because of the multidisciplinary nature of stigma research (Link & Phelan, 2001) and the range of contexts in which stigma research has been conducted for example, transgender employees (Beauregard, Arevshatian, Booth & Whittle, 2016), exotic dancing (Lewis, 1998) and mental ill health (Phelan, Link, Stueve & Pescosolido, 2000).

To address this criticism, Link and Phelan (2001) developed a new conceptualisation of stigma – which includes five interrelated elements. The five elements are: i) identify and label human differences ii) societal beliefs which result in the labelled differences being associated with negative stereotypes iii) the labels result in different groups (i.e. "us" and "them"), iv) the labels mean that those in the "them" group experience discrimination and status loss subsequently resulting in inequity v) social, economic and political power means the labelled people are put into separate groups resulting in disapproval, rejection, exclusion and discrimination. Therefore, they "apply the term stigma when elements of labelling, stereotyping, status loss, and discrimination co-occur in a power situation that allows the components of stigma to unfold" (Link & Phelan, 2001, p. 367). In this thesis, stigma is operationalised using Link and Phelan's definition.

There are a range of types of stigma that individuals can experience. Fiske (2020) proposed that prejudice is the emotional bias, stereotypes are the mental bias and together these result in behavioural bias which is discrimination. This behavioural bias can also be referred to as "enacted stigma" (Pearl, 2018). Experiences of weight-based discrimination are diverse – for example "microaggressions" when individuals experience subtle differences in how they're treated, and explicit/direct discrimination e.g. an individual with obesity not being successful in the recruitment process because of their weight (Pearl, 2018). The three main ways of measuring discrimination are: i) using observational studies ii) using experimental studies and iii) perceived discrimination (gathering data from the perception of the stigmatised person) (Pearl, 2018). Weight stigma can also be internalised, i.e. individuals with obesity internalise negative weight stereotypes and display self-directed weight stigma (Pearl & Puhl, 2018).

There are many different theories through which weight stigma can be viewed. For example, social identity theory (Tajfel & Turner, 1979), evolutionary theories (e.g. Park, Schaller & Crandall, 2007) and attribution theory (Heider, 1958). In this context, social identity theory suggests that individuals self-categorise into different groups for example, an overweight group, and this social identity is shared with others in the group (Hunger, Major, Blodorn & Miller, 2015). Due to the negative stereotypes associated with being overweight individuals are then at risk of suffering weight based social identity threat - individuals with overweight worry about being "devalued, discriminated against, rejected, or negatively stereotyped because of their weight" (Hunger et al., p. 257). Regarding evolutionary theories, Park et al. (2007) proposed that obesity stigma may be due to pathogen avoidance mechanisms: individuals want to avoid those with physical abnormalities because these abnormalities may be reflective of infection, as a consequence when individuals see certain bodily cues this triggers disgust. Their research showed that chronic concerns about pathogens predicted anti-fat attitudes, in addition the research suggested that people with obesity are implicitly associated with disease related perceptions particularly when pathogens are very salient (Park et al., 2007). Researchers have also highlighted that there are three key theoretical positions: weight-centric, non-weight centric (health-centric) and health at every size (Nutter et al., 2016). Attribution theory is normally the theoretical position taken by researchers with a weight centric perspective (Nutter et al., 2016) and is one of the most frequently used theories for explaining weight bias.

This thesis has examined weight stigma through the lens of attribution theory. Attribution theory was chosen as the theoretical framework because of the key focus on the perceived controllability of obesity seen in society and because a lot of empirical research has been conducted using this framework.

3.1 Attribution theory

Attribution theory (Heider, 1958) postulates that individuals look for causes to explain outcomes which can be attributed internally (dispositional attribution) or externally (situational). Weiner applied attribution theory to stigma and proposed that individuals' affective responses and judgements will be influenced by their perceptions of the causes of a stigmatising condition (Weiner, 1985). Crandall et al. (2001) propose that "attributions of controllability stem from underlying beliefs about causality in the physical and social world and are intricately related to social ideologies" (Crandall et al., 2001, p. 31). In the context of anti-fat prejudice, Crandall and Schiffhauer (1998) suggest that fatness is attributed to internal causes that an individual can control and that this is part of a wider philosophical belief that relates to individualism and self-determination, which are particularly reflected or valued in certain cultures. This is in line with the Protestant work ethic which highlights self-discipline and control and the belief that success is a consequence of hard work (Quinn & Crocker, 1999). Similarly, the 'just-world fallacy' (Lerner, 1980) is the assumption that the world is fair, and that people get what they deserve. Supporting this, research has shown stronger just world beliefs are associated with greater stigmatising attitudes towards obesity (Ebneter, Latner & O'Brien, 2011). In this context, people attribute the cause of obesity to individuals and believe that they are responsible for their excess weight; these individuals are therefore perceived to be getting what they deserve and blamed for their weight which can result in them being stigmatised. This can be seen in the following quotes from individuals with obesity: *"You walk down the street and kids all go 'look at that fat lady, mum' and the parent will usually look and go 'yeah, that is what happens when you eat too much.' Or you'll be sitting somewhere in a restaurant and someone will say 'I bet you they are going to eat two meals'"* (Lewis et al., 2011, p. 1352) and *"my father was always telling me I was fat because I was lazy. I have always been active but I did not participate in athletics in school. I was in marching band, chorus and other more academic pursuits so therefore I was 'lazy'"* (Puhl, Moss-Racusin, Schwartz & Brownell, 2008, p. 351). One study examined weight stigma amongst individuals who are regular exercisers, a number of these quotes

demonstrated the 'just-world fallacy' (Lerner, 1980), for example one participant described how people who want to improve the way their body looks will eat healthily and do more exercise, therefore individuals with obesity do not want it enough (Flint & Reale, 2018).

In contrast to this belief, the research suggests the causes of obesity are multifactorial and complex (Government Office for Science, 2007; Townshend & Lake, 2017). However, reflecting the idea that individuals are personally to blame for their weight and reinforcing these ideals are a number of stereotypes that are associated with obesity, for example, laziness, lack of will power and low self-discipline (Puhl & Heuer, 2009). Crandall and Martinez (1996, p. 1166) state that "holding anti-fat attitudes serves a symbolic, or value expressive function…among white North Americans, reinforcing a world view consistent with a belief in a just world, self-determination, the Protestant work ethic, self-contained individualism, and the notion that people get what they deserve." Crandall proposes that these attributions of causality and controllability, and for example the just-world fallacy are 'justification ideologies' which reduce the guilt that people feel for stigmatising individuals with obesity (Crandall, 2000).

Research has been conducted that supports attribution theory in the context of weight bias. For example, using attribution theory as their framework, Weiner, Perry & Magnusson (1988) examined the impact of perceptions of controllability and stability of certain stigmas on affective reactions. They found that stigmas with a mental-behavioural origin such as obesity were perceived as more onset-controllable than physical stigmas; there were also differences in the affective emotions elicited: stigmas with a mental-behavioural origin elicited less pity, liking and more anger (Weiner et al., 1988). Furthermore, manipulations of controllability impacted on affective emotions, information about controllability resulted in higher responsibility, anger, blame and lower liking and pity (Weiner et al., 1988). In an experimental study, DeJong (1993) found that schoolgirls rated the individual with obesity as more self-indulgent and less self-disciplined than the average weight individual. However, this was not the case when the obesity was attributed to a glandular disorder. Crandall et al. (2001) found results to support the application of their attribution-value model of prejudice to anti-fat prejudice; anti-fat prejudice was predicted by attributions of control and the negative cultural value on fatness. More recently, Allison and Lee (2015) found that when participants were provided with information that portrayed obesity as uncontrollable and attributed to medical reasons, the overweight individual was rated more positively.

Overall the research that has examined attribution theory in this context suggests that when perceived controllability of a stigmatised condition is high this is linked with greater stereotyping and negative attitudes (Black, Sokol & Vartanian, 2014). Attribution theory is very useful as it can be applied in many different contexts and can account for why individuals with obesity are perceived as possessing certain characteristics (Puhl & Brownell, 2003). For example, a number of stereotypes associated with obesity (e.g. low self-discipline and laziness) are indicators of low personal control and this theory can be used to explain why negative traits (e.g. obesity) associated with control are likely to result in weight stigma.

However, the application of attribution theory to obesity stigma is not without its limitations. Firstly, it cannot explain why individuals have negative perceptions about obesity in the first place (van Leeuwen, Hunt & Park, 2015). For example, research suggests that individuals with obesity are more stigmatised than underweight individuals with eating disorders (Ebneter & Latner, 2013). Secondly, a methodological issue is that attribution research is often conducted examining hypothetical situations rather than behaviour in the real world (Corrigan, 2000). Thirdly, research investigating interventions to reduce weight bias that have been designed using attribution theory have had mixed results. In such interventions researchers influence beliefs about the causes of obesity and the controllability of obesity; although results may identify differences in beliefs and knowledge about the causes of obesity this is not always associated with a decrease in anti-fat prejudice (Danielsdottir, O'Brien & Ciao, 2010). Yet some interventions designed with attribution theory have been successful (e.g. Diedrichs & Barlow, 2011).

3.2 The role of cultural values in obesity stigma

As attribution theory is affected by sociocultural beliefs, the role of two cultural values - thin-ideal internalisation and healthism - are also discussed in this thesis. Attribution theory and thin-ideal internalisation are two of the predominant theoretical positions taken by researchers with a weight centric perspective; in comparison healthism is usually associated with Health at Every Size researchers (Nutter et al., 2016). Healthism and thin-ideal internalisation will be defined and explained below.

One cultural value that may impact on obesity stigma is thin-ideal internalisation which "refers to the extent to which an individual cognitively "buys into" socially defined

ideals of attractiveness and engages in behaviours design to produce an approximation of these ideals" (Thompson & Stice, 2001, p. 181). Generally, the ideal body image portrayed in the media for women is thin with big breasts (Saraceni & Russell-Mayhew, 2007), whereas for men the ideal is muscular and lean (Pope et al., 2000; Leit, Pope & Gray, 2001). Research suggests that images of women used in the media often show very thin women who are an unrealistic weight (Grabe et al., 2008). In their meta-analysis Grabe et al. (2008) found results to suggest a relationship between internalisation of the thin-ideal and traditional media use. More recent research also suggests a relationship between social media use and thin-ideal internalisation (Mingoia, Hutchinson, Wilson & Gleaves, 2017). This is concerning because thin-ideal internalisation is believed to be a risk factor for disordered eating (Thompson & Stice, 2001). In addition, thin-ideal internalisation may also be linked to anti-fat attitudes and research has investigated this association. Carels and Musher-Eizenman (2010) found results to suggest that those who believe obesity is controllable were more likely to display higher weight bias and a greater preference for thin bodies. Interestingly, Smirles and Lin (2018) did not find that exposure to thin models increased anti-fat attitudes however they did find that viewing attractive images of overweight models was associated with a decrease in anti-fat attitudes. This is promising for interventions and is in line with previous research (Pearl, Puhl & Brownell, 2012; Robinson & Christiansen, 2014). There are different ways in which thin-ideal internalisation may impact on attitudes. For example, Vartanian and Novak (2011) proposed two different types of internalised societal attitudes: 1) anti-fat attitudes which indicate that "fat is bad" and 2) internalisation of societal standards of attractiveness which results in attempting to attain these standards.

Another cultural value that may impact on obesity stigma is healthism. Additionally, Health At Every Size researchers have explained weight bias through a critique of healthism. Health At Every Size is an approach that focuses on health behaviours rather than weight and there is an emphasis on body acceptance of all body shapes and sizes (Penney & Kirk, 2015). Crawford (1980, p. 368) defined healthism as "the preoccupation with personal health as a primary – often the primary – focus for the definition and achievement of well-being; a goal which is to be attained primarily through the modification of lifestyles, with or without therapeutic help." Two key concepts of healthism are that i) judgements on people's worth are made which are based on their health and ii) individual responsibility for health is heavily emphasised (Crawford, 1980). Another element of healthism is moralisation (Brown, 2018). In public discourse obesity has become moralised (Mulder, Rupp & Dijkstra, 2015) which is

defined as “the acquisition of moral qualities by objects or activities that previously were morally neutral” (Rozin, Markwith & Stoess, 1997, p. 67). Moral judgments can be made if something is deemed to cause harm to others or if something is viewed as an individual’s responsibility (Mulder et al., 2015). Specifically, for obesity, the costs for society (e.g. the cost to the NHS) are often highlighted in the media and public discourse highlights and emphasises the role of the individual in terms of the controllability of obesity (Mulder et al., 2015). Brown (2018) proposed that the educational approach to health promotion where individuals are empowered to make lifestyle change may be contributing to this moralisation. Ringel and Ditto (2019) found that moralisation of obesity was a predictor of weight stigma; they propose that this moral view of obesity can account for the key role that control attributions and disgust play in weight stigma. They also found there was a strong association with greater moralisation of obesity, control attributions for obesity and greater disgust.

However, despite their impact, healthism dismisses the social determinants of health (Nutter et al., 2016) e.g. education, income, educational class (Faeh et al., 2011). Faeh et al. (2011) found that indicators of socioeconomic position (education, income and educational class) were all independently associated with overweight and obesity, and the results showed that education was the strongest. More recently, in their systematic review, Newton, Braithwaite and Akinyemiju (2017) found that amongst women lower life course socio-economic status was associated with obesity.

3.3 Obesity stigma as a social justice issue

Nutter et al. (2016) propose that although different theoretical lenses may be used to examine weight bias and different outcomes of weight bias have been identified, all point to it being a significant social issue. Far fewer have considered it to be an issue relating to social justice which in this context is defined as “a term used to describe the value emphasising equitable opportunity, action to amend systemic oppression and participation of all individuals in order to aid them in achieving maximum potential” (Nutter et al., 2016, p. 7). However a robust argument can be made for this as it is recognised that weight bias occurs in many different domains of life (e.g. employment, healthcare, education) (Puhl & Heuer, 2009), the negative psychological and physical impact of obesity stigma is well documented (Wu & Berry, 2018) and it is influenced by perceptions of socioeconomic status (Donaghue, 2014). In addition, research suggests that obesity stigma can worsen pre-existing inequalities

(Makowski et al., 2019). Thus Nutter et al. (2016) call for social justice to be "placed at the forefront of the discussion of weight bias" (p. 7).

As an average weight individual, obesity stigma is not something I have personally experienced. However, I have always had an interest in body image; for my MSc dissertation I conducted research examining the relationships between eating attitudes, thin-ideal, acculturation and the media amongst Asian and British students and after graduating I worked at a charity who delivered an evidence-based eating disorder intervention programme. Researching and writing this thesis has again made me aware of the complexity of body image and the different biases relating to body image inherent in all individuals. In this thesis, when writing, gathering and analysing data, I recognised that whatever the perceived or actual causes of obesity, fundamentally everyone should be treated equally, and compassionately, regardless of their body size. With this thesis I aim to contribute to a better understanding of weight bias in the workplace and how to overcome it.

Chapter 4: Obesity stigma at work - A systematic literature review (Study 1)

4.1 Abstract

Recent reviews have identified the cost burden of obesity on society, the workplace and individuals. However, efforts to tackle obesity in the workplace may be hampered by the stigma associated with obesity. This systematic review examines the available evidence for obesity stigma in the workplace, examining where in the employment cycle research has been conducted, and the key mechanisms impacting upon obesity stigma. Forty five searches were conducted in 3 databases: Web of Science, Business Source Premier and PsycINFO. The searches resulted in 1773 titles. Thirty eight studies met the eligibility criteria. The findings suggest that obesity stigma may be occurring throughout the employment cycle. Individuals with obesity were rated more negatively in performance reviews, less likely to be recommended for hire, recommended for harsher discipline and less likely to be selected for supervisory positions. Research has predominantly focused on recruitment. Less is known about the experience and outcomes of obesity stigma once an employee is part of an organisation. This is, to our knowledge, the first systematic literature review of obesity stigma at work. It addresses a gap in the literature by examining where in the employment cycle research has been conducted, identifying which elements of stigma have been examined and developing a model of obesity stigma at work. There are practical implications regarding interventions to address obesity stigma at work.

4.2 Introduction

Obesity is defined as "abnormal or excessive fat accumulation that may impair health" and it is an ever-increasing problem (World Health Organisation, 2018). Using the frequently used Body Mass Index (BMI) measure, recent figures showed that 38.2% of the US population and 26.9% of the UK population are classified as obese (Organisation for Economic Co-operation and Development, 2017). The significant costs of obesity to individuals and society are well recognised. For example, at the individual level, some of the risks associated with obesity include type 2 diabetes, coronary heart disease and depression (NHS, 2019). At the societal level, it is estimated that annually 16 million days of sickness absence are due to obesity (Public Health England, 2015). Black (2016) also found that 68% of people with obesity are employed whereas this is 70% for those who are average weight, however this gap widens when examining severely obese individuals.

In addition to individual and societal costs, there are also costs associated with the workplace. Obesity is an issue of concern for workplaces for three reasons. Firstly, the way work is designed and managed may be a contributing factor to obesity; environments in which there is low-control and high-demand and long working hours may be associated with a greater risk of obesity (Schulte et al., 2007). Similarly, research suggests that there is an association between night work and increased BMI (Buchvold, Pallesen, Waage & Bjorvatn, 2018), psychosocial strain and weight gain (Niskanen, Holstila, Rahkonen & Lallukka, 2017), and both long hours and working overtime and weight gain (Solovieva, Lallukka, Virtanen, & Viikari-Juntura, 2013). Secondly, there are costs to the workplace associated with obesity. Examples include associations between obesity and absence, injuries, healthcare costs and low productivity (Goettler et al., 2017; Schmier, Jones & Halpern, 2006). Thirdly, individuals with obesity may experience weight stigma at work (Puhl, Andreyeva & Brownell, 2008; Rudolph et al., 2009).

Obesity or weight stigma has been defined as "negative weight-related attitudes and beliefs that are manifested by stereotypes, rejection and prejudice towards individuals because they are overweight or obese" (Puhl, Moss-Racusin, Schwartz & Brownell, 2008, p. 347) and it is proposed that stigma is a combination of prejudice (emotional), stereotypes (mental) and discrimination (behavioural biases) (Fiske, 2020) and can be measured by feeling, belief or behaviour. One theory that can be used to explain obesity stigma is attribution theory. In this context, it is proposed that individuals attribute the causes of obesity to internal causes, consequently these judgments affect their attitudes and their affective responses to individuals with obesity (Weiner, 1985; Crandall & Schiffhauer, 1998). Supporting this, research shows that individuals are more likely to display negative attitudes towards individuals with obesity when they internally attribute causes of weight and believe that it can be controlled through willpower, diet and exercise (Crandall, 1994). This reductionist view of the causes of obesity is not reflective of the research in this area; an obesity system map showed that there are 108 variables that impact on the energy balance of individuals and populations, and even more causal linkages (Government Office for Science, 2007).

There is also a tendency for society, particularly the media, to emphasise that the management of obesity is within the control of an individual (Kim & Willis, 2007; Flint, Hudson & Lavallee, 2016). For example, an article in the Daily Mail reporting on the

increase in obesity-related hospital admissions emphasised the role of junk food (Blanchard, 2019), in addition there are also a number of offensive articles published in the media which help to normalise weight stigma. This focus on the management of obesity being within the control of the individual may fuel the perception that individuals with obesity are lazy or lacking self-discipline (Klassen, Jasper & Harris, 1993), characteristics that are not positively regarded in the workplace. Often, these stereotypes and attitudes are not challenged either within or outside the workplace which can result in negative outcomes for obese individuals, in the form of obesity discrimination. Parallels between mental health stigma can also be drawn. For example, in the Shaw Trust (2018) report, they reported that in 2017, 42% of the respondents believed that people with mental health conditions are less reliable employees, this was 19% higher than in 2009. Additionally, 56% of the respondents compared to 51% in 2009 agreed that 'negative attitudes from co-workers is a major barrier to employing people with mental health conditions' and 71% agreed that 'employers are generally resistant to hiring workers with mental health conditions' (Shaw Trust, 2018). To address mental health stigma a variety of campaigns have been implemented (e.g. Time to Change) and research investigating the impact of Time to Change on employers' knowledge, attitudes and practices in addition to public knowledge and attitudes has shown positive results (Henderson, Williams, Little & Thornicroft, 2013; Henderson et al., 2016). However, the findings from the Shaw Trust (2018) suggest that even with the implementation of campaigns to address the stigma of mental ill health there is still a long way to go.

Although comparisons can be drawn with mental health stigma there are three particular elements of obesity stigma that make it unique. First, individuals with obesity show prejudice to themselves and other individuals with obesity, in addition, the in-group is not a typically supportive in-group and when supported by others, it is to lose weight and therefore leave the in-group (Finkelstein, Frautschy Demuth & Sweeney, 2007). Second, the perceived controllability of obesity is very high, but unlike alcoholism and drug abuse which also have high perceived controllability, obesity is highly viewable to others (Finkelstein et al., 2007). Third, obesity stigma is one of the few stigmas that are still considered socially acceptable (Smith, 1990; De Brún, McCarthy, McKenzie & McGloin, 2014), even being viewed by some as a way of encouraging individuals with obesity to lose weight (Puhl & Heuer, 2010). More broadly however, it has become less socially acceptable to show bias (Fiske, 2020) and subsequently, prejudice, stereotypes and discrimination are now shown in more subtle ways. Jones, Peddie, Gilrane, King and Gray (2016) recently showed in their

meta-analysis that the negative impact of subtle discrimination on psychological, physical health and work-related outcomes is similar to that of overt discrimination. Furthermore, according to attributional ambiguity theory (Crocker, Voelkl, Testa & Major, 1991), the ambiguity of subtle discrimination may result in more internal attribution for individuals which could negatively impact on psychological wellbeing.

There are a number of reasons why we need to better understand obesity stigma at work.

First, in a recent systematic review of 33 studies, the authors concluded that weight stigma is associated with a range of negative individual physiological (e.g. cortisol level) and psychological outcomes (e.g. depression and anxiety) (Wu & Berry, 2018). As Jackson et al. (2014) highlight, research also suggests that those who experience weight stigma, independent of BMI, adopt a lifestyle that increases the likelihood of the development of obesity. Additionally, as aforementioned, the in-group is not a typically supportive one (Finkelstein et al., 2007) therefore individuals with obesity may receive less support than other employees who are part of other stigmatised groups (Watson, Levit & Lavack, 2017).

Second, the role obesity stigma plays in tackling obesity is currently underestimated and overlooked. Current approaches focus on the biological elements of obesity, with a strong emphasis on changing individual-level health behaviour. However, the development of obesity is both complex and multifactorial; psychosocial aspects play a key part (Government Office for Science, 2007) but are largely ignored. Research demonstrating the link between internalised weight stigma, individuals internalising stereotypes against their in-group and displaying weight bias or anti-fat attitudes towards themselves, and weight loss maintenance (Puhl, Quinn, Weisz & Suh, 2017) reinforces the need for greater consideration of psychological aspects.

Third, employers may have a legal obligation to address obesity stigma. In 2014 the European Court of Justice ruled that obesity can be considered a 'disability' if it causes physical, mental or psychological problems that adversely affect an individual's ability to work (Shubber & O'Connor, 2014). This means that employers need to ensure employees with obesity do not experience unfair treatment or harassment due to their size and that reasonable adjustments for employees are made when needed because employees may be

protected by disability legislation. In 2015, there was a disability harassment case in Northern Ireland; Mr Bickerstaff who was categorised as 'severely obese' reported harassment by his colleagues, in particular, his colleague Mr Butcher (Solanke, 2016). One of the comments made by Mr Butcher was that he was 'so fat he would hardly feel a knife being stuck into him.' The claim was upheld as the tribunal agreed that Mr Bickerstaff had been harassed in relation to his disability (Solanke, 2016). There have also been calls for obesity itself to become a protected characteristic (Hervey & Rostant, 2016). With regard to other legal contexts, Reykjavik, Santa Cruz, San Francisco, Madison, Urbana, Washington, Binghampton and the state of Michigan have specific legislation to protect against weight or body size discrimination (Puhl et al., 2015; The City of Reykjavik's Human Rights Policy, 2020).

Fourth, there is a potential financial impact for organisations as the physical and psychological impact of obesity stigma often results in further health issues (Wu & Berry, 2018), which has the potential to increase health insurance premiums and absence, reduce productivity (Goettler et al., 2017) and increase the cost of health promotion initiatives. Although research (Goettler et al., 2017) suggests that individuals with obesity may be absent from work more frequently and less productive this could be further evidence that employees with obesity suffer with other health issues and suggests that stigma will only exacerbate this issue. This evidence cannot be used to justify the existence of stereotypes or discrimination; those with other illnesses, such as cancer and mental health issues are also more likely to be absent from work (Drolet et al., 2005; Koopmans et al., 2011) but it would not be deemed acceptable or lawful to use this to justify discrimination. Additionally, if obesity stigma is occurring throughout the employment cycle, from recruitment to promotion, it is likely to impact on the available talent pool within the organisation. Finally, if projections of obesity are correct, for example in the UK future projections of obesity levels are 50% of the population by 2030 (Wang et al., 2011), a vast proportion of the workforce will be obese which is another reason why stigma needs to be addressed.

Fifth, existing evidence suggests that obesity stigma at work is pervasive. For example, in a self-report study amongst women with overweight and obesity, 25% stated that they had experienced job discrimination due to their weight, 54% of overweight women stated they had experienced weight stigma from colleagues and 43% had experienced weight stigma from employers or supervisors (Puhl & Brownell, 2006). Puhl, Andreyeva and

Brownell (2008) reported that in the US, 60% of those who stated they had experienced weight or height discrimination in employment had been subjected to this on average 4 times in their life. Reported discrimination includes not being hired, wrongful termination, lower performance ratings, not being promoted (Puhl, Andreyeva & Brownell, 2008; Rudolph et al., 2009), and lower hourly pay (Brunello & D'Hombres, 2007). Brunello and D'Hombres (2007) found that a 10% increase in average BMI was associated with a decrease in hourly pay of 1.9% amongst men and 3.3% amongst women. Meta-analyses have also examined weight-based bias at work. Rudolph et al. (2009) found a medium effect of weight-based bias amongst evaluative workplace outcomes, such as hiring, performance and promotions. Weight-based bias was greatest when examining hiring outcomes. Performance outcomes were the second largest effect and the smallest effect was on promotion outcomes. Roehling, Pichler and Bruce (2013) found a moderately large effect of weight on job-related outcomes, although later reviews have found smaller effects (Vanhove & Gordon, 2014). Evidence demonstrating the prevalence of weight-based discrimination and stigma was also found in a survey which examined British Social Attitudes towards obesity (NatCen Social Research, 2016). One of the questions asked about equally well qualified candidates for an office manager role and who out of an overweight and not very overweight person would be more likely to get the job or whether they would have an equal chance. 75% said that the person who is not very overweight would be successful, 22% said they would have an equal chance and only 1% said it would go to the overweight person. While obesity stigma is prevalent in the workplace, it is less clear exactly where in the employment cycle it has been examined, how it presents itself and what mechanisms influence it.

Sixth, there have also been calls for interventions to address weight stigma (Puhl & Heuer, 2010) however very few interventions have been conducted within the workplace. Those that have been conducted in the workplace have mainly focused on the healthcare sector, evaluating interventions amongst student healthcare professionals towards patients with obesity (e.g. Diedrichs & Barlow, 2011; Swift, Tischler, et al., 2013). It is proposed that the current study will have practical implications regarding interventions to address obesity stigma. While it is clear that obesity stigma is prevalent in the workplace, it is less clear how obesity stigma presents itself in the workplace and what impact it has on employees or the organisation. To develop effective interventions, it is necessary to know which facets of obesity stigma (e.g. feeling, believing, behaviour) at work have been examined and at what point in the employment cycle obesity stigma has been examined. It is particularly important

to separate the different facets of stigma as research suggests that implicit and explicit anti-fat attitude measures may not always be significantly associated with anti-fat discrimination (O'Brien et al., 2008).

4.2.1 The current study

This study is, to our knowledge, the first systematic literature review of obesity stigma at work. It adds to previous reviews of obesity discrimination at work (Rudolph et al., 2009; Roehling et al., 2013; Giel, Thiel, Teufel, Mayer & Zipfel, 2010; Nowrouzi et al., 2015) in the following ways: i) identifying in which stages of the employment cycle obesity stigma has been examined; ii) investigating the facets of stigma to shed light on the mechanisms underpinning obesity stigma; and iii) developing a model of obesity stigma at work to help inform interventions to tackle obesity stigma. The employment cycle symbolises the different phases of the employee/employer relationship throughout an employee's working life and many different models have been proposed. In this study a simplified version of the employment cycle was used, and it was defined as recruitment, training, performance management and progression.

The research questions the review aimed to address were:

1) What is the available evidence for obesity stigma in the workplace?
2) What are the stages of the employment cycle in which obesity stigma has been examined?
3) What are the key mechanisms impacting upon obesity stigma?

4.3 Method

To conduct this review, a systematic approach as outlined in Briner and Denyer (2012) was adopted.

4.3.1 Search strategy

15 search terms were used to search three databases: Web of Science, Business Source Premier and PsycINFO. Search terms were identified through a preliminary review of the literature and discussion between the researchers, and were: obesity, obese, overweight, "weight-based bias", fat, stigma*, work*, occup*, and employ*; 15 searches were conducted per database (obesity OR obese OR overweight OR "weight-based bias" OR fat AND stigma AND work* OR occup* OR employ*). The resulting 45 searches yielded 1773 titles. To identify secondary references from the hand search, reviews and book chapters which were identified in the primary search were examined for relevant papers for inclusion. Two reviewers independently conducted the title sift, abstract sift and full paper review using the inclusion and exclusion criteria (see Table 4.1); a third reviewer adjudicated any discrepancies.

Table 4.1*: Inclusion and exclusion criteria*

Inclusion criteria	**Exclusion criteria**
Prevalence and impact of obesity stigma in the workplace	Not specific to the workplace Obesity rather than obesity stigma
Peer-reviewed	Not peer-reviewed
Psychological or behavioural outcomes	Wages/economic outcomes
Written in English	Conducted using big data

Figure 4.1 shows the search and selection procedure.

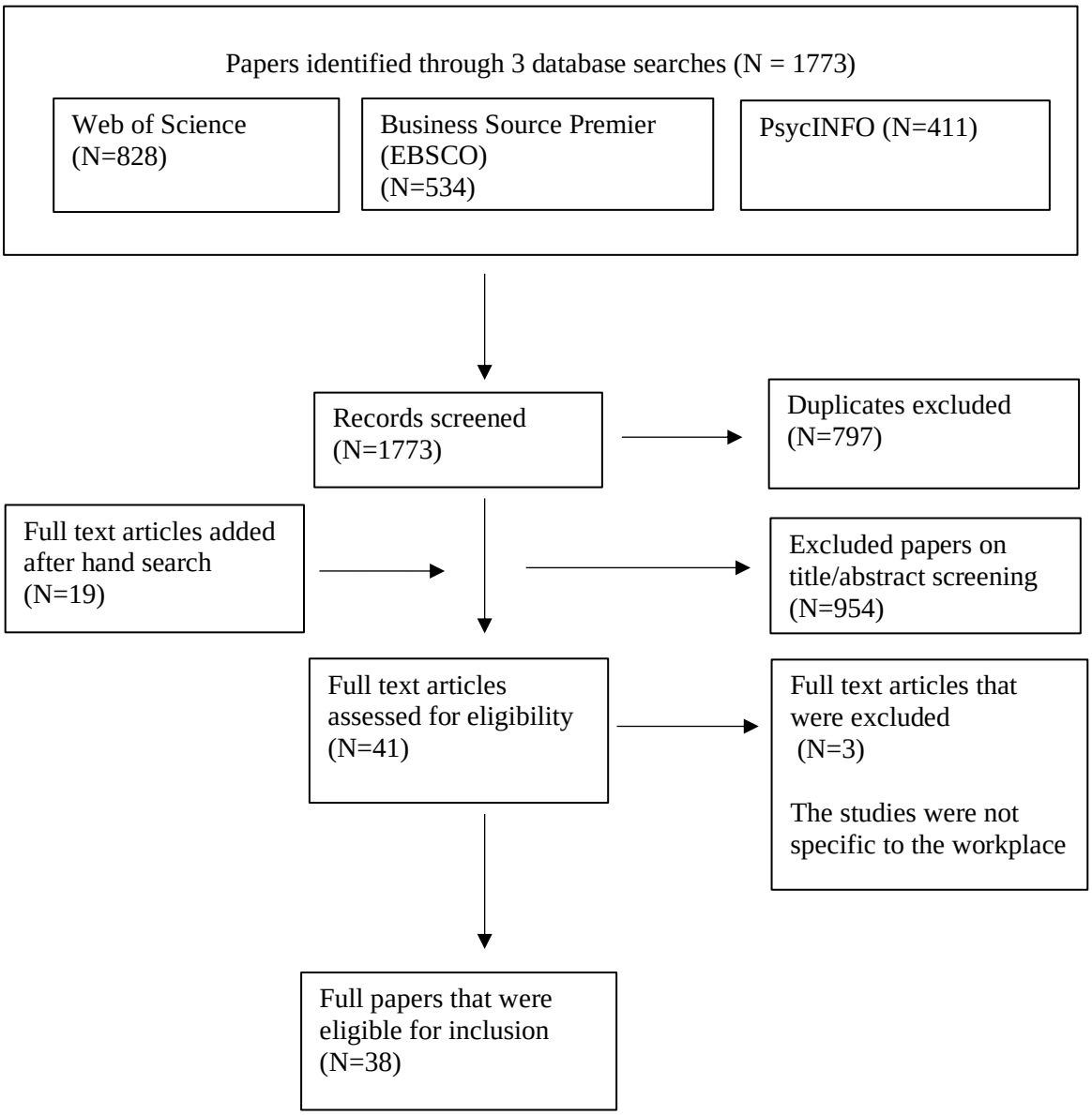

Figure 4.1: Search and selection procedure

4.3.2 Data extraction and data synthesis

For each full paper, data was extracted into a pre-agreed evidence table including study design, study population, outcomes and at which stage of the employment cycle the obesity stigma research had been conducted. The evidence table was checked for accuracy by a second researcher. Any differences in interpretation were discussed with a third researcher. Finally, the three researchers independently reviewed the evidence table and met to discuss and agree the themes presented.

It was not possible to conduct a meta-analysis due to the heterogeneity of the studies. The results are therefore reported using narrative synthesis which is a frequently used approach (Briner & Denyer, 2012). The 38 studies were categorised based on the stage of the employment cycle which they examined, and the findings are presented using these four discrete categories: recruitment, training, performance management and progression. In addition, some studies examined general weight-based employment stigma, as it was not possible to categorise these studies into the four employment cycle categories, these are presented in a separate category.

4.3.3 Quality assessment

A quality assessment across all papers was conducted. One checklist was used for the 35 quantitative papers and one for the three qualitative papers. The quantitative checklist was comprised of an amended version of the quality checklist quantitative evidence of intervention effectiveness (Snape et al., 2017), four questions from the quality assessment tool for observational cohort and cross sectional-studies (National Heart, Lung, and Blood Institute, 2020) and the questions relating to ethical issues in the quality checklist for qualitative studies (Snape et al., 2017). The qualitative papers were assessed using the quality checklist for qualitative studies (Snape et al., 2017). The quality assessment was independently conducted by the primary researcher. As recommended by Snape et al. (2017) a minimum of 10% of the papers were reviewed by a second researcher. After the results were reviewed, evidence statements with gradings were produced (see Table 4.5).

4.4 Results

38 papers met the eligibility criteria (see Table 4.2). Table 4.2 sets out the study characteristics, stage in the employment cycle in which the research was conducted, method of data collection, participant characteristics, and the facet of obesity stigma that was measured (e.g. feeling, belief, behaviour). Each of these areas is briefly explored below.

Table 4.2: *Study characteristics*

Study characteristics					Participant characteristics			Measure of obesity stigma		
Author	**Country**	**Design**	**Stage in the Employment Cycle**	**Method of data collection**	**Employees**	**Students**	**Mixed or unspecified**	**Feeling**	**Belief**	**Behaviour**
Allan, Edgar & O'Kane (2016)	New Zealand	Cross-sectional Hypothetical	Recruitment	Scenario/ vignette based questionnaire		✓			✓	✓
Bellizzi & Hasty (1998)	United States	Quasi-experimental Hypothetical	Performance management	Scenario/ vignette based questionnaire	✓				✓	✓
Bellizzi & Hasty (2001)	United States	Quasi-experimental Hypothetical	Performance management	Scenario/ vignette based questionnaire	✓					✓
Bellizzi, Klassen & Belonax (1989)	United States	Quasi-experimental Hypothetical	Progression	Scenario/ vignette based questionnaire		✓				✓
Bellizzi & Norvell (1991)	United States	Quasi-experimental Hypothetical	Performance management	Scenario/ vignette based questionnaire	✓					✓
Brown & Thompson (2007)	United Kingdom	Cross-sectional Field	General weight-based employment discrimination	Interview	✓			✓	✓	✓

Study characteristics					Participant characteristics			Measure of obesity stigma		
Author	**Country**	**Design**	**Stage in the Employment Cycle**	**Method of data collection**	**Employees**	**Students**	**Mixed or unspecified**	**Feeling**	**Belief**	**Behaviour**
Carels et al. (2015)	United States	Quasi-experimental Hypothetical	Recruitment	Scenario/ vignette based questionnaire		✓			✓	✓
Cowart & Brady (2014)	United States	Quasi-experimental Hypothetical	General weight-based employment discrimination	Scenario/ vignette based questionnaire			✓		✓	
Ding & Stillman (2005)	New Zealand	Quasi-experimental Hypothetical	Recruitment	Scenario/ vignette based questionnaire	✓					✓
Finkelstein et al. (2007)	United States	Experimental Hypothetical	Recruitment	Video and scenario/ vignette based questionnaire		✓		✓	✓	✓
Flint et al. (2016)	Czech Republic, Slovenia and the United Kingdom	Experimental Hypothetical	Recruitment	Scenario/ vignette based questionnaire and IAT	✓				✓	✓
Giel et al. (2012)	Germany	Experimental Hypothetical	Recruitment and progression	Online scenario based assessment	✓					✓

Study characteristics					Participant characteristics			Measure of obesity stigma		
Author	**Country**	**Design**	**Stage in the Employment Cycle**	**Method of data collection**	**Employees**	**Students**	**Mixed or unspecified**	**Feeling**	**Belief**	**Behaviour**
Gruys (2012)	United States	Observational Field	Progression	Observational	✓				✓	✓
Haskins & Ransford (1999)	United States	Cross-sectional Field	General weight-based employment discrimination	Survey	✓					✓
Hebl & Kleck (2002)	United States	Quasi-experimental Hypothetical	Recruitment	Video and scenario/ vignette based questionnaire		✓		✓	✓	✓
Hebl & Mannix (2003)	United States	Experimental Hypothetical	Recruitment	Scenario/ vignette based questionnaire			✓		✓	✓
Jasper & Klassen (1990)	United States	Experimental Hypothetical	General weight-based employment discrimination	Scenario/ vignette based questionnaire		✓		✓	✓	
Klassen, Jasper & Harris (1993)	United States	Quasi-experimental Hypothetical	Performance management	Scenario/ vignette based questionnaire		✓			✓	✓

Study characteristics					Participant characteristics			Measure of obesity stigma		
Author	**Country**	**Design**	**Stage in the Employment Cycle**	**Method of data collection**	**Employees**	**Students**	**Mixed or unspecified**	**Feeling**	**Belief**	**Behaviour**
Klesges et al. (1990)	United States	Experimental Hypothetical	Recruitment	Video and scenario/ vignette based questionnaire		✓			✓	
Krueger, Stone & Stone-Romero (2014)	United States	Experimental Hypothetical	Recruitment	Scenario/ vignette based questionnaire		✓			✓	✓
Larkin & Pines (1979)	United States	Quasi-experimental Hypothetical	Recruitment	Video and scenario/ vignette based questionnaire			✓		✓	✓
Lindeman Crandall & Finkelstein (2017)	United States	Quasi-experimental Hypothetical	Performance management	Scenario/ vignette based questionnaire		✓			✓	✓
McKee & Smouse (1983)	United States	Experimental Field	General weight-based employment discrimination	Audio and scenario/ vignette based Questionnaire		✓			✓	
Melville & Cardinal (1997)	United States	Cross-sectional Hypothetical	Recruitment	Scenario/ vignette based questionnaire	✓					✓

Study characteristics					Participant characteristics			Measure of obesity stigma		
Author	**Country**	**Design**	**Stage in the Employment Cycle**	**Method of data collection**	**Employees**	**Students**	**Mixed or unspecified**	**Feeling**	**Belief**	**Behaviour**
Miller & Lundgren (2010)	United States	Experimental Hypothetical	General weight-based employment discrimination	Scenario/ vignette based questionnaire		✓		✓	✓	
O'Brien, Latner, Ebneter & Hunter (2013)	Not specified	Quasi-experimental Hypothetical	Recruitment	Scenario/ vignette based questionnaire		✓			✓	✓
O'Brien et al. (2008)	New Zealand	Quasi-experimental Hypothetical	Recruitment	Scenario/ vignette based questionnaire and IAT		✓			✓	✓
Obara-Gołębiowska (2016)	Poland	Cross-sectional Field	General weight-based employment discrimination	Group interviews/ focus groups			✓			✓
Pingitore, Dugoni, Tindale & Spring (1994)	United States	Experimental Hypothetical	Recruitment	Video and scenario/ vignette based questionnaire		✓			✓	✓
Polinko & Popovich (2001)	United States	Quasi-experimental Hypothetical	Recruitment	Audio and scenario/ vignette based questionnaire		✓			✓	✓

Study characteristics					Participant characteristics			Measure of obesity stigma		
Author	**Country**	**Design**	**Stage in the Employment Cycle**	**Method of data collection**	**Employees**	**Students**	**Mixed or unspecified**	**Feeling**	**Belief**	**Behaviour**
Popovich et al. (1997)	United States	Quasi-experimental Hypothetical	Recruitment	Scenario/ vignette based questionnaire		✓			✓	✓
Powroznik (2017)	United States	Experimental Hypothetical	Recruitment	Scenario/ vignette based questionnaire			✓		✓	✓
Roehling et al. (2007)	United States	Cross-sectional Field	General weight-based employment discrimination	Interview and questionnaire			✓		✓	✓
Rothblum, Brand, Miller & Oetjen (1990)	United States	Cross-sectional Field	General weight-based employment discrimination	Questionnaire			✓		✓	✓
Rothblum, Miller & Garbutt (1988)	United States	Quasi-experimental Hypothetical	Recruitment	Scenario/ vignette based questionnaire		✓		✓	✓	✓
Ruggs, Hebl & Williams (2015)	United States	Experimental Field and hypothetical	General weight-based employment discrimination	Observational and video and Scenario/ vignette based questionnaire			✓			✓

Study characteristics					Participant characteristics			Measure of obesity stigma		
Author	**Country**	**Design**	**Stage in the Employment Cycle**	**Method of data collection**	**Employees**	**Students**	**Mixed or unspecified**	**Feeling**	**Belief**	**Behaviour**
Sartore & Cunningham (2007)	United States	Experimental Hypothetical	Recruitment	Scenario/ vignette based questionnaire		✓			✓	✓
Shapiro, King & Quiñones (2007)	United States	Quasi-experimental Hypothetical	Training	Online task and scenario/ vignette based questionnaire		✓			✓	✓

4.4.1 Study characteristics

Country of origin: The 38 studies originated from eight countries. 30 were from the United States, three were from New Zealand, three were from European countries, one was from three European countries, and one did not specify.

Study design: As shown in Table 4.2, four designs were employed, with quasi-experimental and experimental dominating. Data was largely collected through the use of questionnaires with fewer studies employing interviews and observations. The majority of the studies were hypothetical.

The 38 studies were categorised based on the stage of the employment cycle in which the research was conducted, and the findings are presented below using these four discrete categories: recruitment, training, performance management and progression. There were a number of studies which examined general weight-based employment stigma; as it was not possible to categorise these studies into the four employment cycle categories, these are presented in a separate category.

Participant characteristics: Across the 37 studies that specified participant numbers, there were a total of 12,784 participants. 20 studies provided information on mean participant age, which ranged from 19.0 to 51.8 years. 33 studies specified the gender split, of which 15 had an approximately balanced split, five were predominately male and 13 were predominately female. Only seven studies stated the mean BMI of participants, which ranged from 22.9 kg/m2 to 36.7 kg/m2. 20 studies used student samples, 10 used employee samples and eight used mixed or unspecified samples (see Table 4.2). Employee samples included: HR professionals, employees in jobs of varying physical demands (e.g. sedentary, standing, manual work and heavy manual work), those hiring physical education teachers, sales managers, retail employees, nurses and aerospace industry employees. 32 of the studies used opportunity sampling, 3 random sampling, 1 systematic, 1 stratified and 1 cluster.

Measures of obesity stigma: The measurement of obesity stigma varied and included measures of feeling, belief and behaviour. 33 studies measured the 'behaviour' element, 29 measured the 'belief' element, and six measured the 'feeling' element. 12 studies measured one element only, 22 measured two and four studies measured all three (see Table 4.2).

Differentiating the elements of stigma is important to help understand why and how the relationship between beliefs, feelings and behaviour occurs. Two studies reported that negative attitudes towards, and beliefs about, obese people did not result in discriminatory behaviour; suggesting biased attitudes do not always result in biased behaviours (e.g. Allan et al., 2016; Polinko & Popovich, 2001), while other research has supported the relationship between anti-fat prejudice and obesity discrimination (O'Brien, Latner, et al., 2013). Interest in examining the inconsistencies between attitudes and behaviour is not new (LaPiere, 1934; Wicker, 1969) and more recently, Haddock and Maio (2004) proposed that attitudes do predict behaviour, but this is dependent on specific conditions, for example the strength of the attitude, the subject the research is examining and the similarity of the measures.

4.4.2 Stage in the employment cycle

This review presents the studies categorised by the stage of the employment cycle in which they examined obesity stigma: recruitment, training, performance management and progression. 20 studies examined obesity stigma during recruitment, one during training, five in performance management, three in progression and ten reported general weight-based employment stigma (see Table 4.2). One paper examined obesity stigma both in progression and recruitment.

Recruitment

Of the 20 studies that examined obesity stigma in relation to recruitment (Allan et al., 2016; Carels et al., 2015; Ding & Stillman, 2005; Finkelstein et al., 2007; Flint et al., 2016; Giel et al., 2012; Hebl & Kleck, 2002; Hebl & Mannix, 2003; Klesges et al., 1990; Krueger et al., 2014; Larkin & Pines, 1979; Melville & Cardinal, 1997; O'Brien, Latner et al., 2013; O'Brien et al., 2008; Pingitore et al., 1994; Polinko & Popovich, 2001; Popovich et al., 1997; Powroznik, 2017; Rothblum et al., 1988; Sartore & Cunningham, 2007), nine were experimental, nine were quasi-experimental and two were cross-sectional. To examine these studies in more detail, they have been categorised according to their participant population: students, employed individuals and mixed or unspecified samples.

Recruitment - student samples

13 studies used students as their participant population. However, in three of these studies student participants had some experience of employment: 15% had previously been involved in hiring (Finkelstein et al., 2007), all had experience making or assisting with

hiring recommendations (Krueger et al., 2014) and mean previous full-time employment was 5.6 years (Klesges et al., 1990).

Obese candidates were rated or ranked less positively than average weight candidates and were less likely to be recommended for hire; generally, outcomes were better for thinner applicants (Finkelstein et al., 2007; O'Brien et al., 2008; O'Brien, Latner, et al., 2013; Pingitore et al., 1994; Popovich et al., 1997; Rothblum et al., 1988; Sartore & Cunningham, 2007). O'Brien et al. (2008) also found that participants recommended obese candidates be offered lower starting salaries. Three factors were found to influence hiring decisions: i) conscientiousness - overweight women were rated as more suitable and more likely to receive a hiring recommendation when they had high rather than low conscientiousness (Krueger et al., 2014), ii) the method of weight loss - candidates were more likely to be hired if they had lost weight behaviourally rather than surgically (Carels et al., 2015) and iii) gender - overweight women may be judged more harshly than overweight men (Pingitore et al., 1994).

Two studies compared the impact of different types of stigma on hiring: obese and diabetic candidates were less likely to be hired than those of average weight (Klesges et al., 1990). Differences were also observed in perceptions of absence: diabetics were judged to be more likely to have medically related job absences compared to individuals with obesity. Hebl and Kleck (2002) found that physically disabled candidates who acknowledged their disability were judged more positively than obese candidates who acknowledged their obesity. Obese candidates whose condition was perceived to be uncontrollable were judged more positively than those whose condition was perceived to be controllable (Hebl & Kleck, 2002).

One study investigated moderators, three studies investigated mediators, and one study investigated both. Finkelstein et al. (2007) found that applicant race and qualifications moderated the effects of weight, only for ratings of interpersonal skills and adaptability, suggesting discrimination may vary depending on the rating criteria. There was also higher negative affect when viewing obese candidates compared to average weight candidates, but this was not significant, so mediation analyses could not be conducted. Sartore and Cunningham (2007) also found that qualifications moderated the relationships between body weight and perceived person-job fit and hiring recommendations. Stereotypes may also be mediators; according to Krueger et al. (2014), two stereotypes - health and attractiveness -

mediated the relationship between weight and suitability and hiring recommendations. In line with this, Pingitore et al. (1994) found that negative personality traits attributed to individuals with obesity partially mediated the relationship between obesity and hiring decision. Rothblum et al. (1988) provided some evidence that attractiveness may be a mediator, finding that when attractiveness was controlled for by providing photos, there was less negative stereotyping of obese individuals than when attractiveness was assumed from a written description.

Much obesity stigma research has been conducted using students which has raised questions about its generalisability. However, the results suggest that there are similarities with findings from research conducted with employed individuals.

Recruitment - employee samples

Four studies used employed individuals as their participant population. Results showed that overweight or obese candidates were ranked significantly lower, rated more negatively, and perceived to be significantly less suitable than average weight candidates (Ding & Stillman, 2005; Flint et al., 2016; Melville & Cardinal, 1997). They were also more likely to be disqualified from hiring (Giel et al., 2012). Research also suggests that there may be some gender differences. For example, females with obesity were perceived to be less suitable than males with obesity and less likely to be hired (Flint et al., 2016) and in another study, the female candidate with obesity was also most frequently disqualified (Giel et al., 2012). None of these studies examined moderators or mediators.

Recruitment - mixed or unspecified samples

Three studies used mixed or unspecified samples. Similar to the research reviewed above, one of these studies (Larkin & Pines, 1979) found that overweight candidates were rated more negatively and were less likely to be recommended for hire. Two studies showed discriminatory hiring practices (e.g. more negative ratings and lower hiring recommendations) but did not find a significant difference in starting salary (Larkin & Pines, 1979; Powroznik, 2017), suggesting that discrimination may be dependent on the task or criteria. Research also suggests that the weight of others who are in close proximity may impact on discrimination; one study found that simply sitting next to a heavy woman or being pictured next to one resulted in the candidates being less likely to be recommended for hire and being rated more negatively - proximity effect (Hebl & Mannix, 2003). One factor that

may affect obesity discrimination is a health promotion programme; Powroznik (2017) found that candidates with obesity were less likely to be recommended for hire and were rated more negatively when being assessed for hire into an organisation with a health promotion programme than into one without.

One study examined moderators: interestingly, Hebl and Mannix (2003) did not find that anti-fat attitude scores moderated the relationship between weight and ratings. In their study, candidates sat next to a heavy individual and were rated and recommended for hire: neither perceived relationship strength between the candidate and the heavy individual, nor participant's anti-fat attitudes nor participant gender were moderators. One paper examined potential mediators: Powroznik (2017) found that negative beliefs about work ethic mediated the relationship between the presence of workplace health promotion programme and worse hiring outcomes.

Training

One study examined obesity stigma in relation to training (Shapiro et al., 2007). The study was quasi-experimental, and the participants were undergraduate students. Results showed that trainers had lower training expectations of trainees with obesity compared to average weight trainees, and that expectations were influenced by stereotypes about the trainee. This could mean that, while individuals with obesity may attend training to help them develop and overcome discrimination in their career, low trainer expectations might result in them receiving lower quality training and being further discriminated against.

The study examined trainer gender as a moderator and found that female trainers, but not male trainers, had lower expectations of success, expected a poorer work ethic from trainees with obesity and evaluated trainees with obesity more negatively than average weight trainees. Furthermore, the least positive trainer and training evaluations were given by trainees with obesity who had female trainers. As discussed earlier, the gender of the individual with obesity may moderate the impact of obesity stigma, in addition, this research suggests that the gender of the individual expressing stigma may also moderate the impact.

Performance management

Five studies examined obesity stigma in relation to performance management. All five studies were quasi-experimental, and participants comprised sales managers (Bellizzi &

Hasty, 1998; Bellizzi & Norvell, 1991; Bellizzi & Hasty, 2001) and students (Klassen et al., 1993; Lindeman et al., 2017).

Employees who demonstrated behaviour that was in line with obesity stereotypes (e.g. laziness, low self-esteem, lack of will power) or behaviour that was in line with thin stereotypes (e.g. vain, flirtatious, egotistical) were judged most negatively, and recommended for harsher discipline (Klassen et al., 1993). Their behaviour was judged to be more likely to happen again and there was the least desire to work with them (Klassen et al., 1993). This suggests that weight bias occurs not only at the larger end of the scale. Lindeman et al. (2017) investigated the effect of priming participants about the causes of obesity. Those who read about the controllable causes of obesity (e.g. lifestyle choices) were more likely to withhold a raise or promotion in response to employee error from an employee with obesity than an average weight employee. However, this was specific to these two disciplinary actions, suggesting that discrimination will not always occur in the same way and supporting evidence that height and weight data are used differently depending on the task, for example whether it relates to desire to work with an employee or discipline (Klassen et al., 1993).

Results also showed that employees with obesity were recommended for harsher discipline, were rated more negatively than an average weight salesperson and were judged to be less of a good fit for challenging sales territories (Bellizzi & Hasty, 1998; Bellizzi & Norvell, 1991). Bellizzi and Hasty (2001) also found that salespeople with obesity received harsher discipline than non-obese salespeople, with saleswomen with obesity receiving harsher discipline than salesmen with obesity. Where policies regarding unethical behaviour were in place, obese salespeople were treated more fairly.

One study investigated a moderator: Bellizzi and Hasty (1998) showed that the type of sales position moderated the effects of obesity; individuals with obesity were viewed as more fit for the challenging sales territory if they were doing telephone sales rather than face to face sales.

Taken together these findings suggest that the factors impacting on obesity stigma include exhibiting behaviours in line with stereotypes, perceptions about the controllability of obesity, gender, having a policy in place in response to unethical behaviour and the extent of client facing work in one's role. The stigma may also be specific to certain disciplinary

actions such as verbal reprimand and written reprimand (Bellizzi & Hasty, 1998). It is therefore suggested that by behaving in line with a positive stereotype or not in line with obese stereotypes might offset the effect of obesity. Additionally, highlighting the uncontrollable causes of obesity may help to address stigma.

Progression

Three studies examined obesity stigma in relation to progression (Giel et al., 2012 (which also examined obesity stigma in recruitment); Bellizzi et al., 1989; Gruys, 2012). They were experimental, quasi-experimental and observational respectively. Participants were HR professionals, undergraduate students and customers and employees of a plus-sized store. There was significant bias towards both heavy smokers and overweight individuals when allocating sales territories; further analysis showed that overweight saleswomen were discriminated against more than overweight salesmen, suggesting that gender may be a moderating factor in obesity discrimination (Bellizzi & Hasty, 2001). Giel et al. (2012) found that candidates with obesity were selected for promotion to a supervisory position less often than normal weight candidates. In line with this, Gruys (2012) noted that gender and body size impacted on the allocation of jobs and tasks; sales associates and assistant managers were mainly plus sized whereas top-level managers and stockroom employees tended to be average weight and male. Gruys (2012) also reported that top-level managers tended to be externally recruited and therefore factors relating to recruitment may be at play.

General weight-based employment stigma

10 studies reported general weight-based employment stigma (Brown & Thompson, 2007; Cowart & Brady, 2014; Haskins & Ransford, 1999; Jasper & Klassen, 1990; McKee & Smouse, 1983; Miller & Lundgren, 2010; Obara-Gołębiowska, 2016; Roehling et al., 2007; Rothblum et al., 1990; Ruggs et al., 2015). Four of these were experimental, one was quasi-experimental and five were cross-sectional. Participants included women from an obesity management clinic, Americans who were part of the National Survey of Midlife Development, members of the National Association to Advance Fat Acceptance and their family and friends, employees, retail store employees, students and nurses.

These studies showed a variety of weight-based employment stigma, such as difficulty finding work or progressing in the workplace, verbal and social discrimination at

work, being fired, being denied benefits and being pressured to hand in notice (Obara-Gołębiowska, 2016; Rothblum et al., 1990; Roehling et al., 2007). Interestingly Rothblum et al. (1990) found no significant difference between the frequency of obesity discrimination reported by the obese group and the average weight group, suggesting there may be a critical weight required for discrimination to occur. Rothblum et al. (1990) found that the very obese participants reported more kinds of weight-related employment discrimination than the average weight or obese participants; amongst the very obese participants, 26% stated that they had been denied benefits and 17% stated that they had been fired or pressured to hand in their notice because of their weight (Rothblum et al., 1990). For females, there was a significant effect of weight on income in entry-level professional and managerial jobs (Haskins & Ransford, 1999). Additionally, amongst professional and managerial jobs the prevalence of overweight females was lower (39%) than thinner females (65%); whereas the prevalence of overweight females in blue-collar positions was higher (25% compared to 7% for thinner females). The research also suggests that gender may interact with weight: amongst very obese women, 27.7% said that they had experienced weight-related employment discrimination compared to 12.1% of men (Roehling et al., 2007). Miller and Lundgren (2010) found that obese female political candidates were evaluated more negatively than non-obese female political candidates, but obese male candidates were evaluated more positively than non-obese male candidates.

Research also suggests that obese employees may be evaluated negatively by clients. Employees with obesity were judged to have a more negative appearance, more carelessness and less professionalism by clients (Ruggs et al., 2015). However, research suggests this may be mitigated by certain factors as unambiguous cues and a positive stereotype (e.g. joviality) helped to decrease the effect of the negative stereotype on customer evaluations (Cowart & Brady, 2014). Weight may also impact on client judgments of expertness and trustworthiness; McKee and Smouse (1983), found non-significant results although they were approaching significance, for an interaction between the status of a counsellor (e.g. low - in training or high – extensive experience and completed a PhD) and their weight (normal or overweight) with regards to client judgements of expertness and trustworthiness. Supporting this, Jasper and Klassen (1990) found that participants were less likely to want to work with obese colleagues and thought that they would be significantly less effective at selling products. Brown and Thompson (2007) examined attitudes and beliefs and body size of

nurses in relation to patient obesity management and identified three key themes: sensitivity about obesity, the complexity of obesity and the effects of their own body size.

One study examined a mediator: Ruggs et al. (2015) found that weight had an indirect effect with discrimination being mediated by the negative stereotypes; for heavy employees there was greater endorsement of negative stereotypes and subsequently more negative evaluations of the employee, the organisation and products. As mentioned above, Miller and Lundgren (2010) found results supporting the idea that gender is a moderator.

4.4.3 Quality assessment

Table 4.3 provides the quality assessment of the quantitative papers and Table 4.4 provides the quality assessment of the qualitative papers. The assessment shows that a variety of measures have been used to examine obesity stigma and in many of the papers it is not possible to determine whether the measures are valid and reliable. The studies are also all cross-sectional and the credibility of the findings is often not explored. Two out of the three qualitative papers did not sufficiently explain their data analysis process. The papers all contribute to a greater understanding of obesity stigma at work however much of the research that was identified and included in this review is of low quality.

Once the quality assessment was conducted the data as a whole was examined and quality statements from Snape et al. (2017) were applied to the body of evidence in relation to the evidence statements. In their framework, Snape et al. (2017) proposed the following quality statements: unclear evidence, initial evidence, promising evidence and strong evidence. Evidence statements with gradings are provided in Table 4.5.

Table 4.3: *Quality assessment of quantitative studies*

Paper	Was the study well designed?						Was the study carried out appropriately?			Was analysis appropriate?		Is the evidence consistent?				Have ethical issues been taken into consideration?				Contribution		
	Research question or objective clearly stated	Design is appropriate	Study population clearly specified and defined	Participants selected or recruited from the same or similar populations	Inclusion and exclusion criteria prespecified and applied uniformly	Measures are appropriate for outcome and population	Representative sample for target population	Sample size - sufficiently large to test for desired impact	Measures are valid and reliable	Analysis methods appropriate	Missing data appropriately treated	Findings made explicit	Discussion of evidence for and against researcher's arguments	Discussion of credibility of findings	Discussion of findings in relation to research question	Sufficient details of how the research was explained to participants to assess whether ethical standards were maintained	Researcher discussed issues raised by study	Adequate discussion of issues such as informed consent and anonymity	Consequences of research considered	Approval from an ethics committee	Contribution to existing knowledge or understanding	**Total score**
1	✔	✔	✔	✔	✔		✔	✔	✔	✔		✔	✔		✔				✔	✔	✔	15
2	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	✔			✔				✔		✔	14
3	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	✔			✔				✔		✔	14
4	✔	✔	✔	✔	✔		✔	✔		✔		✔			✔						✔	11
5	✔	✔	✔	✔	✔		✔	✔		✔		✔			✔						✔	11
6	✔	✔	✔	✔			✔	✔		✔		✔			✔					✔	✔	11
7	✔	✔	✔	✔			✔	✔	✔	✔	✔	✔	✔		✔				✔		✔	14
8	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	✔	✔	✔			✔	✔	✔	17
9	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔		✔	✔	✔		✔	✔		✔	16
10	✔	✔	✔	✔	✔		✔	✔	✔	✔		✔		✔	✔	✔			✔	✔	✔	16
11	✔	✔	✔	✔	✔		✔	✔		✔		✔			✔	✔			✔	✔	✔	14
12	✔	✔	✔	✔	✔	✔	✔	✔		✔		✔			✔						✔	12
13	✔	✔	✔	✔	✔		✔	✔	✔	✔	✔	✔		✔	✔				✔		✔	15
14	✔	✔	✔	✔						✔	✔	✔	✔	✔	✔	✔			✔		✔	13
15	✔	✔	✔	✔	✔		✔			✔		✔			✔						✔	10
16	✔	✔	✔	✔	✔		✔			✔		✔			✔				✔		✔	11
17	✔	✔	✔	✔	✔		✔	✔		✔		✔			✔	✔					✔	12
18	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔			✔	✔			✔	✔	✔	16
19	✔	✔	✔	✔			✔					✔			✔	✔					✔	9
20	✔	✔	✔	✔	✔		✔	✔	✔	✔	✔	✔			✔	✔			✔		✔	15
21	✔	✔	✔	✔	✔	✔	✔		✔	✔		✔	✔		✔	✔		✔			✔	15
22	✔	✔	✔	✔	✔		✔	✔		✔		✔			✔	✔		✔	✔		✔	14
23	✔	✔	✔	✔	✔		✔	✔		✔		✔		✔	✔	✔			✔	✔	✔	15
24	✔	✔	✔	✔	✔		✔	✔	✔	✔	✔	✔	✔		✔	✔			✔	✔	✔	17
25	✔	✔	✔	✔	✔		✔	✔	✔	✔		✔	✔		✔	✔				✔	✔	15
26	✔	✔	✔	✔	✔		✔	✔	✔	✔		✔			✔						✔	12
27	✔	✔	✔	✔	✔	✔	✔		✔	✔		✔	✔		✔	✔		✔			✔	14

Paper	Was the study well designed?						Was the study carried out appropriately?			Was analysis appropriate?		Is the evidence consistent?				Have ethical issues been taken into consideration?					Contribution	
	Research question or objective clearly stated	Design is appropriate	Study population clearly specified and defined	Participants selected or recruited from the same or similar populations	Inclusion and exclusion criteria prespecified and applied uniformly	Measures are appropriate for outcome and population	Representative sample for target population	Sample size - sufficiently large to test for desired impact	Measures are valid and reliable	Analysis methods appropriate	Missing data appropriately treated	Findings made explicit	Discussion of evidence for and against researcher's arguments	Discussion of credibility of findings	Discussion of findings in relation to research question	Sufficient details of how the research was explained to participants to assess whether ethical standards were maintained	Researcher discussed issues raised by study	Adequate discussion of issues such as informed consent and anonymity	Consequences of research considered	Approval from an ethics committee	Contribution to existing knowledge or understanding	**Total score**
28	✔	✔	✔	✔	✔		✔			✔		✔			✔				✔		✔	11
29	✔	✔	✔	✔		✔	✔	✔	✔	✔	✔	✔			✔	✔			✔		✔	15
30	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔		✔				✔		✔	15
31	✔	✔	✔	✔	✔		✔	✔		✔	✔	✔			✔						✔	12
32	✔	✔	✔	✔	✔		✔			✔		✔			✔						✔	10
33	✔	✔	✔	✔		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	20
34	✔	✔	✔	✔	✔		✔	✔	✔	✔		✔			✔	✔			✔		✔	14
35	✔	✔	✔	✔			✔			✔		✔	✔		✔				✔		✔	11

1 = Allan et al. (2016); 2 = Bellizzi & Hasty (1998); 3 = Bellizzi & Hasty (2001); 4 = Bellizzi et al. (1989); 5 = Bellizzi & Norvell (1991); 6 = Carels et al. (2015); 7 = Cowart & Brady (2014); 8 = Ding & Stillman (2005); 9 = Finkelstein et al. (2007); 10 = Flint et al. (2016); 11 = Giel et al. (2012); 12 = Haskins & Ransford (1999); 13 = Hebl & Kleck (2002); 14 = Hebl & Mannix (2003); 15 = Jasper & Klassen (1990); 16 = Klassen et al. (1993); 17 = Klesges et al. (1990); 18 = Krueger et al. (2014); 19 = Larkin & Pines (1979); 20 = Lindeman et al. (2017); 21 = McKee & Smouse (1983); 22 = Melville & Cardinal (1997); 23 = Miller & Lundgren (2010); 24 = O'Brien, Latner, Ebneter & Hunter (2013); 25 = O'Brien et al. (2008); 26 = Pingitore et al. (1994); 27 = Polinko & Popovich (2001); 28 = Popovich et al. (1997); 29 = Powroznik (2017); 30 = Roehling et al. (2007); 31 = Rothblum et al. (1990); 32 = Rothblum et al. (1988); 33 = Ruggs et al. (2015); 34 = Sartore & Cunningham (2007); 35 = Shapiro et al. (2007)

NB a blank cell in this table may mean that the study was scored ‘Can’t tell’ rather than it was a ‘No’

Table 4.4: *Quality assessment of qualitative studies*

Paper	Is a qualitative methodology appropriate?		Is the research design appropriate for addressing the aims of the research?	Is there a clear statement of findings?				Was the data collected in a way that addressed the research issue?						Was the recruitment strategy appropriate to the aims of the research?			Was the data analysis sufficiently rigorous?									Has the relationship between researcher and participants been adequately considered?	Have ethical issues been taken into consideration?				Contribution	
	Research seeks to interpret or illuminate actions and/or subjective experiences	Qualitative methodology addresses research goal	Researcher justified research design	Findings made explicit	Discussion of evidence for and against researcher's arguments	Discussion of credibility of findings	Discussion of findings in relation to research question	Justified setting for data collection	Clear methods for data collection	Justification of methods chosen	Explicit process of data collection	Explanation of any modifications during study	Form of data clear	Explanation of how participants were selected	Explanation of why participants selected were the most appropriate	Discussion around recruitment and potential bias	Selection theoretically justified	In-depth description of analysis process	For thematic analysis, clear how categories/themes were derived from the data	Explanation of how data presented were selected to demonstrate analysis process	Sufficient data presented to support findings	Findings grounded in/supported by data	Good breadth and/or depth in findings	Contradictory data taken into account	Data appropriately referenced	Researcher critically examined their own role, potential bias and influence	Researcher responded to events during the study and implications	Sufficient details of how research explained to participants	Researcher discussed issues raised by study	Adequate discussion of issues such as informed consent and anonymity	Consequences of research considered	Approval from an ethics committee	Contribution to existing knowledge or understanding	**Total score**
1	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔				✔	✔		✔	✔	27
2	✔	✔	✔	✔				✔		✔			✔	✔	✔					✔	✔	✔	✔		✔							✔	15
3	✔	✔		✔			✔		✔		✔		✔	✔	✔	✔					✔	✔										✔	13

1 = Brown & Thompson (2007); 2 = Gruys (2012); 3 = Obara-Gołębiowska (2016)

NB a blank cell in this table may mean that the study was scored ‘Can’t tell’ rather than it was a ‘No’

Table 4.5: *Evidence statements and quality ratings*

Evidence statement	Quality rating	Reasoning
What is the available evidence for obesity stigma in the workplace?	Promising evidence	There are multiple studies all of which are limited in their design and execution
What are the stages of the employment cycle in which obesity stigma has been examined?	Promising and initial evidence	With regards to recruitment, there is promising evidence but with regards to the other stages of the employment cycle (such as training, performance management and progression) there is initial evidence as studies have been conducted which are limited in design and further research is required.
What are the key mechanisms impacting upon obesity stigma?	Initial evidence	Studies have been conducted which are limited in design and further research is required

4.4.4 Model of obesity stigma in the workplace

Overall, the results suggest that outcomes are worse for obese individuals: obese individuals are rated more negatively, are less likely to be recommended for hire, are recommended for harsher discipline, are less likely to be selected for a supervisory position and people have lower training expectations of employees with obesity. However, while research has been conducted across the employment cycle, the majority has focused on recruitment. Less is known about the process and outcomes of obesity stigma once an employee is in an organisation. Additionally, although the available evidence for obesity stigma in the workplace is promising, only a few studies have examined the mechanisms through which obesity/overweight and stigma occur and much of this is only initial evidence. A model derived from this systematic literature review is proposed in Figure 4.2.

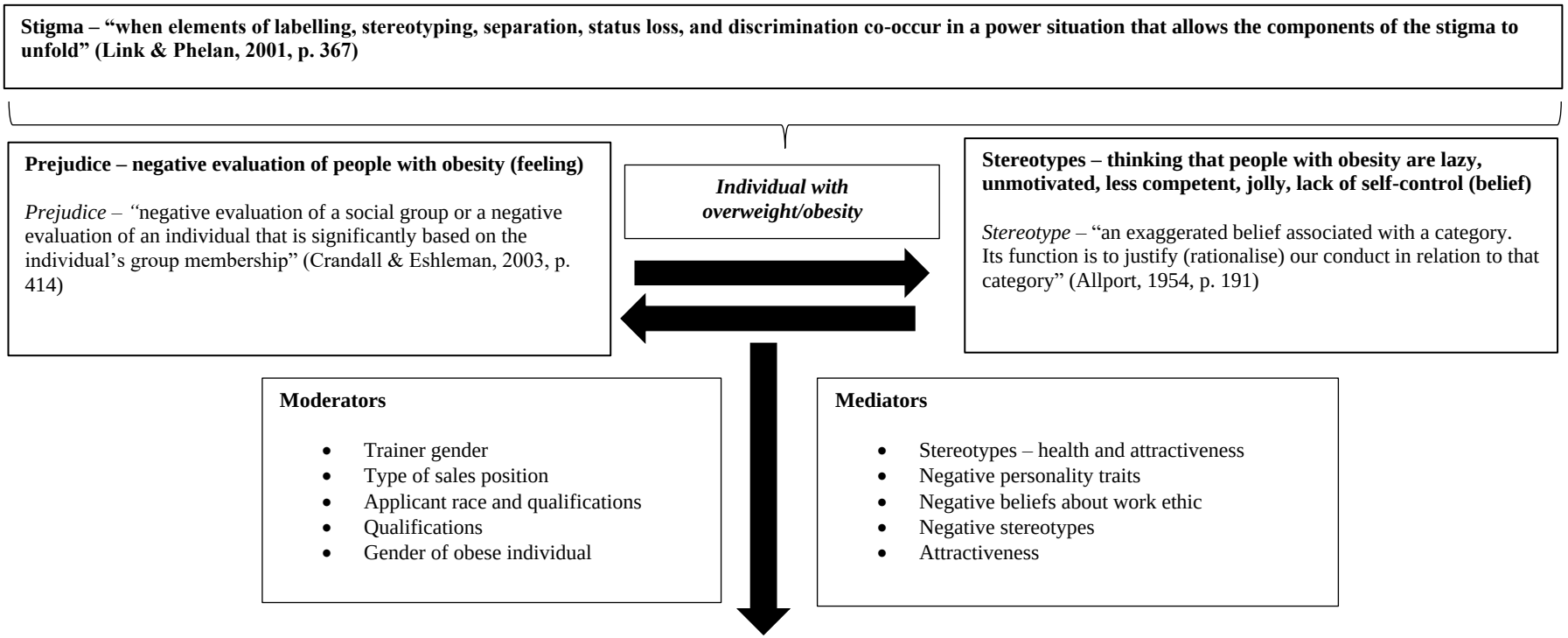

Figure 4.2: Model of obesity stigma in the workplace

4.5 Discussion

This review sought to examine the existing evidence for obesity stigma in the workplace. The research questions were 1) What is the available evidence for obesity stigma in the workplace? 2) What are the stages of the employment cycle in which obesity stigma has been examined? 3) What are the key mechanisms impacting upon obesity stigma? The review identified 38 studies which met the eligibility criteria.

4.5.1 What is the available evidence for obesity stigma in the workplace?

This review sought to examine the existing evidence for obesity stigma in the workplace. The results from the quality assessment suggest that there is promising evidence in relation to the evidence statement – what is the available evidence for obesity stigma in the workplace. Using a variety of methods, studies demonstrated that outcomes are worse for individuals with obesity: they are rated more negatively, less likely to be recommended for hire, recommended for harsher discipline, less likely to be selected for a supervisory position, and people have lower training expectations of them.

There is some evidence of a complex relationship between belief/ attitude and behaviour; two studies in this review showed that biased belief and/or attitude did not result in discriminatory behaviour (Allan et al., 2016; Polinko & Popovich, 2001). Allan et al. (2016) concluded that amongst their population sample, millennials, although they displayed bias in their attitudes and stereotypes, these did not strongly impact on their recruitment decision. Polinko and Popovich (2001) concluded that in their study there was inconsistency between attitudes and behaviours. In line with research conducted over a number of decades (LaPiere, 1934; Wicker, 1969) inconsistencies between attitudes and behaviours may explain these results. However, it is critical to further explore the relationship between the different facets of stigma to better understand this dissonance. Overall, the research supported the role of attribution theory in weight bias, for example the attribution-value model of prejudice (Crandall et al., 2001). Findings suggest that when perceptions of controllability are high, individuals with obesity are judged less favourably and more negative attitudes are shown (Carels et al., 2015; Flint et al., 2016; Hebl & Kleck, 2002).

Overall, however, the limited available research and the variety of study designs and measures used limits the conclusions that can be drawn at this stage. Variation in the measures used to measure obesity itself, and obesity stigma, hinder the synthesis of the

research. The findings suggest that research has focused on explicit rather than implicit bias. Furthermore, examining which elements of stigma each study measured showed that almost all the studies measured the 'behaviour' element, many measured the 'belief' element but that only six measured the 'feeling' element. However, this 'feeling' element may play a key role in the process of stigma and the interaction of the three elements should be researched further. Additionally, only seven studies reported the mean BMI of participants, but these did not examine differences in obesity stigma as categorised by BMI, which is a shortcoming given previous research identifying differences in anti-fat attitudes between different BMI groups (Flint, Hudson & Lavallee, 2015). Furthermore, few studies included in this review examined obesity stigma from the perspective of an individual with obesity or using real-world field studies, with the majority of findings based on hypothetical scenarios, with a hypothetical employer. The perspective of individuals with obesity is a key area to consider, particularly in the context of designing interventions to address obesity stigma at work. A meta-analysis by Jones et al. (2016) showed that the negative impact of subtle discrimination on psychological, physical health and work-related outcomes is similar to that of overt discrimination. How discrimination manifests in the workplace and how it impacts on the employee requires further attention.

4.5.2 What are the stages of the employment cycle in which obesity stigma has been examined?

Results from the quality assessment suggest that there is both promising and initial evidence in relation to the evidence statement – what are the stages of the employment cycle in which obesity stigma has been examined. Much of the evidence has been provided in the context of recruitment with 20 of the 38 studies focusing on this initial stage. Consequently, the most commonly examined outcomes were applicant ratings and rankings on various attributions, perceived suitability, and hiring recommendations. Previous research (e.g. Puhl, Andreyeva & Brownell, 2008; Rudolph et al., 2009) reported stigma occurring in the workplace. However, this review indicates that little is known about how obesity stigma affects individuals once they have been recruited into an organisation. Further experimental research is required exploring the effects of obesity stigma once individuals with obesity are within an organisation. In addition, to examine the social, behavioural and economic impact of obesity stigma at work, it is important to research experience in the workplace rather than experience of entering the workplace.

4.5.3 What are the key mechanisms impacting upon obesity stigma?

Results from the quality assessment suggest that in relation to the evidence statement – what are the key mechanisms impacting upon obesity stigma – there is initial evidence. The operating mechanisms of stigma were explored in 10 of the papers and a model derived from this literature review is proposed in Figure 4.2. This shows the potential for mechanisms (e.g. stereotypes, gender of the obese individual, applicant race, type of sales position) to impact on prejudice (feeling) and stereotypes (thinking) which may result in discrimination (behavioural bias); examples of obesity discrimination from this review are also provided in the model. However, the mechanisms of stigma examined in this review were explored in a very limited way; studies have largely focused on a narrow number of mediators and moderators. For example, one study examined trainer gender as a moderator, and another examined whether two stereotypes – health and attractiveness – mediated the relationship between weight and suitability and hiring recommendations. However, the conclusions that can be drawn from the data are limited as the quality of the data was quite low and was categorised as initial evidence. In comparison to what we know about the factors influencing other forms of stigma, our understanding of obesity stigma at work is in its infancy.

4.5.4 Limitations

The evidence presented in this review is limited in four ways. First, over half the studies included student populations. Student populations are relatively easy to access and research using student samples has provided useful insights into obesity stigma at work, however, given that the focus is on the workplace, the limited work experience of some students may impact the results. Yet, when comparing the results of studies with student samples and studies with employees, similar findings were found. Second, the majority of the research was based on hypothetical situations. Experimental studies are a practical tool for manipulating certain factors, i.e. weight, and this is particularly useful when applied to the context of the recruitment process. However, in reality, in the hiring process a number of factors, separate to weight, will be considered and interpersonal interaction is also likely to impact on, for example, hiring outcomes. Third, 30 out of 38 studies were conducted in the US. The high prevalence of obesity seen in the US may explain why more research exploring obesity stigma has been conducted in the US. However, given the different cultural context it is not possible to know whether the results can be generalised to other cultural contexts, where other social and interpersonal factors may play an important role. Fourth, 14 of the studies were conducted prior to 2000, the context of the workplace has changed, and it is not

known whether the findings would translate to today's workplaces where the emphasis on healthy living and healthy workplaces has never been greater.

4.5.5 Implications for further research and practice

Four priorities for future research can be identified from this review: first, there is a need to move beyond the study of stigma and discrimination in recruitment, to develop a comprehensive understanding of obesity stigma across the different stages of the employment cycle. Second, further research is needed to better understand the mechanisms of obesity stigma in order to develop effective workplace interventions. The majority of the research in this review examined the 'behaviour' element of stigma – discrimination; many studies examined beliefs, but there was little consideration of feelings, yet two studies (Allan et al., 2016; Polinko & Popovich, 2001) showed that biased belief and/or attitude does not always result in discriminatory behaviour. Third, further research should consider whether discrimination towards individuals with obesity, is an element of tackling obesity that is currently underestimated. Recent research showed an association between weight loss maintenance and internalised stigma (Puhl, Quinn, Weisz & Suh, 2017), individuals internalising stereotypes against their in-group and displaying weight bias or anti-fat attitudes towards themselves (Puhl, Moss-Racusin & Schwartz, 2007). Finally, there is a need for robust and convergent research designs using employee samples, to further build the understanding of obesity stigma at work.

Together with earlier research that showed the negative physical and psychological outcomes of weight discrimination (Puhl & Heuer, 2010; Major, Eliezer & Rieck, 2012; Sutin, Stephan, Carretta & Terraccinao, 2015; Wu & Berry, 2018) this review strengthens the need for organisations to consider the role of obesity stigma. The research suggests that obesity stigma may be occurring throughout the employment cycle, however limited research has been conducted. The research also points to a number of practical implications for organisations. There is a need to consider how organisations monitor, review and mitigate obesity stigma at recruitment, onboarding, training, promotion and development. Furthermore, with recent calls for obesity itself to come a protected characteristic (Hervey & Rostant, 2016) it is important that employers are aware of potential stigma throughout the employment cycle.

4.6 Conclusions

There is a pressing need to develop a more complete understanding of how obesity stigma affects all aspects of working life, moving beyond the focus on recruitment. With the increasing prevalence of obesity, knowledge of the outcomes of obesity stigma and the mechanisms that underpin it may help us to improve access to fairer treatment and support for individuals with obesity, whilst also developing more successful interventions to address weight loss.

Chapter 5: Obesity stigma in disciplinary decisions - A vignette study among UK nursing managers (Study 2)

5.1 Abstract

Research has identified high levels of obesity stigma amongst healthcare professionals and suggests that the prevalence of obesity amongst nurses is high. Examining obesity stigma at work, a growing body of literature has identified the impact of obesity stigma at the point of selection but much less is known about disciplinary contexts. Using a vignette design, this study examined obesity stigma in decisions relating to disciplinary actions amongst nursing managers. 71 UK based nursing managers completed an online survey. The findings highlight both the prevalence of fat phobia amongst nursing managers and the prevalence of obesity; 66% of the sample were individuals with overweight or obesity. No significant differences were identified between the disciplinary actions selected for employees with obesity and employees of an average weight. This research addresses a gap in the literature by examining the impact of weight stigma in disciplinary decisions. Although the nursing managers did not display obesity discrimination, the prejudices and stereotypes they hold have the potential to impact on both colleague and patient interactions which would have implications for organisations.

5.2 Introduction

The established links between obesity absence, injuries, healthcare costs and low productivity (Goettler et al., 2017; Schmier et al., 2006) position obesity as a significant concern for organisations and it has been suggested that efforts to address obesity may be compromised. This is because efforts to address weight stigma are lacking, and the role of stigma has been overlooked. Reinforcing the need for greater consideration of the role of obesity stigma, research has demonstrated the link between obesity stigma and adverse health outcomes (Puhl & Suh, 2015) and more recently, the link between internalised weight stigma and weight loss maintenance (Puhl, Quinn, Weisz & Suh, 2017). Research has also shown that weight stigma exists in many different facets of life, including healthcare, education and employment (Puhl & Heuer, 2009).

5.2.1 Insights from the systematic literature review

The first study conducted as part of this thesis was a systematic literature review and the results informed the design and development of study 2 in a number of ways. The results showed that promising evidence was available for obesity stigma in the workplace. However, due to the limited research that has been conducted and the wide range of study designs and measures employed limited conclusions can be drawn. Consequently, further research is required.

One of the key issues identified in the systematic literature review was that most of the research that has been conducted has focused only on the recruitment stage of the employment cycle. Whilst providing a useful understanding of how obesity stigma might influence individuals with obesity at the point at which they are trying to enter an organisation, there is a limited understanding of how obesity stigma might impact on individuals once they are within an organisation. Specifically, there is a limited understanding of the experience of employees with obesity in other working contexts where a decision has to be made on the basis of that employee, for example in development, promotion or disciplinary settings. Yet this is required to better understand the true impact of obesity stigma and to develop effective solutions to address it. Therefore, this study examines weight bias in the performance management stage of the employment cycle and specifically in the context of decisions relating to disciplinary actions.

Another finding identified in the systematic literature review was that research has tended to focus on explicit rather than implicit bias. However, it is important to measure both as there may be variations in the levels of implicit and explicit bias that individuals display (Phelan et al., 2014). Therefore, this study examines both implicit and explicit measures.

Finally, many of the studies did not report the mean BMI of participants nor examine relationships between BMI and other measures. Therefore, this study aimed to examine the relationship between BMI and a variety of dependent variables.

5.2.2 Obesity stigma in the workplace across the employment cycle

Examples of weight bias can be found across the workplace and include not being hired, wrongful termination, lower performance ratings, not being promoted (Puhl, Andreyeva & Brownell, 2008; Rudolph et al., 2009), and lower hourly pay (Brunello &

D'Hombres, 2007). Meta-analyses have identified a moderately large effect of weight on job-related outcomes (Roehling et al., 2013), although later reviews have found smaller effects (Vanhove & Gordon, 2014).

Using research from the fields of psychology, law, sociology and economics, Roehling (1999) examined the evidence for weight-based discrimination in the context of the law and concluded that most of the discrimination that is happening is not likely to be judged as illegal. Although the approach Roehling (1999) took to examine employment related obesity stigma was different to the systematic literature review seen in chapter 4, he also reached a similar conclusion which is that research suggests discrimination occurs at almost every stage of the employment cycle. In addition, Godfree, Lewis, Yarker and Donaldson-Feilder (under review) concluded that most of the obesity stigma at work literature has predominately focused on recruitment and identified that the research examining obesity stigma in development, promotion or disciplinary settings is lacking.

The context of the disciplinary setting is an important one. The wider employment research suggests that factors such as 'liking' and 'attractiveness' bias influence decisions made by managers and may play a particular role in the treatment of employees with obesity. Disciplinary procedures enable managers to treat employees who display misconduct or subpar performance consistently, yet research suggests factors such as weight, attractiveness and liking may affect disciplinary fairness (Lindeman et al., 2017; Commisso & Finkelstein, 2012; Fandt, Labig & Urich, 1990). For example, Fandt et al. (1990) found that managers' recommendations for disciplinary actions varied depending on whether they liked the employee. Examining the impact of weight, Bellizzi and Norvell (1991) found results to suggest that salespeople who were overweight received harsher discipline. However, Klassen et al. (1993) found that weight did not affect participants' responses to discipline, but interestingly it did affect other decisions e.g. their desire to work with an employee. Bellizzi and Hasty (2001) found results to suggest that in a hypothetical situation when an employee had violated a company policy, practicing sales managers display bias in decisions about disciplinary actions; salespeople with obesity received more severe discipline, and saleswomen with obesity received more severe discipline than salesmen with obesity suggesting gender may also interact with the bias.

As research suggests that obesity is perceived to be unattractive (Puhl & Heuer, 2009) insights can also be drawn from the attractiveness literature. Commisso and Finkelstein (2012) found that attractiveness can affect disciplinary action decisions– specifically employee termination - albeit a small effect size, in addition the unattractive employee was liked less than the other employees. Lindeman et al. (2017) identified that emphasising the controllable causes of obesity was associated with participants being more likely to withhold a raise or promotion from employees with obesity than an average weight employee.

Taken together, these findings suggest that employees with obesity may experience stigma in the context of disciplinary decisions. This is an important area to explore because as Lindeman et al. (2017) highlight in their recent paper, there is a paucity of research investigating employees with obesity and disciplinary actions, there are some indications of the negative impact of obesity stigma on employees in the workplace and research suggests that unfair discipline is associated with numerous outcomes such as decreased morale and increased attrition (Trevino, 1992).

5.2.3 Obesity in healthcare settings

There is a high prevalence of obesity in healthcare professionals in England. In their recent research Kyle et al. (2017) found that 25% of nurses are obese in comparison to 14.4% of other healthcare professionals (e.g. psychologists, physiotherapists, medical practitioners, midwives, ophthalmic opticians etc.). However, unregistered care workers (e.g. nursing auxiliaries, care workers and home carers) displayed the highest prevalence at 31.9%. In comparison, a study investigating Scottish nurses found that 69.1% of Scottish nurses were overweight or obese, this was a higher prevalence than other healthcare professionals or unqualified care staff (Kyle, Neall & Atherton, 2016). Due to this high prevalence of obesity identified in nurses, a range of workplace initiatives have been trialled. When examining the effectiveness of these interventions, it is important to consider the organisational context in which nurses work, i.e. the emotional labour, shift work, the lack of breaks, as this will affect the success and attendance of nurses at such interventions (Kelly & Wills, 2018).

Research by the Royal Society for Public Health (2014) suggests that individuals who work in public health feel pressurised to be a role model for healthy lifestyles. The research also highlighted that the weight of the healthcare professional plays a key role in whether or not the advice is followed by a member of the public; the public are less likely to take advice

related to diet and exercise from a healthcare professional with overweight and obesity. However, further research is required to better understand this relationship. More recently, in their Delphi Study, Kelly, Wills, Jester and Speller (2017) found no agreement amongst a range of stakeholders (e.g. service users, nursing policy, nursing education, workforce development leads, pre-registration student nurses, practising nurses) that it is a reasonable expectation for nurses to have to be a healthy role model for a healthy lifestyle. Two key findings were that role modelling was viewed as an individual choice rather than professional obligation and generally, perceptions are that as long as nurses can meet job demands and fitness to practise requirements there is no issue. In their systematic review of 31 studies Kelly, Wills and Sykes (2017) concluded that there is not enough consistent evidence to state that nurses' personal health behaviour influences their health promotion practice.

5.2.4 Obesity stigma in healthcare settings

Weight stigma is especially prevalent in healthcare and given the link between obesity stigma and adverse health outcomes (Puhl & Suh 2015), there is recognition of the particularly detrimental effect it has in this setting therefore much research has focused on this context. In this context, research has focused on the prevalence of bias shown towards patients with obesity and the impact of this on patient care and care outcomes. For example, research has demonstrated significant levels of weight bias among students in the UK training to be nurses, doctors, dietitians and nutritionists (Swift, Hanlon, et al., 2013) and both implicit and explicit weight bias amongst first year medical students (Phelan et al., 2014). It is proposed that the negative attitudes and stereotypes healthcare professionals have will impact on their judgement, behaviour and decision making which has the potential to impact on quality of care (Phelan et al., 2015).

Research has also demonstrated that bias may be impacted by a variety of antecedents (e.g. BMI and beliefs about the controllability of obesity). For example, lower fat phobia was predicted by higher self-reported BMI amongst UK trainee nurses, doctors, dietitians and nutritionists (Swift, Hanlon, et al., 2013) and anti-fat attitudes and fat phobia varied according to weight category (Flint et al., 2015). Tanneberger and Ciupitu-Plath (2018) explored weight bias in nurses caring for obese patients in Germany. The results showed that nurses who attributed weight to individual control were more likely to describe discrimination of patients with obesity. This discrimination included differences in the treatment provided to patients with obesity and limiting resources required to provide

satisfactory care to patients with obesity. Twenty eight percent of the participants reported that they had personally discriminated against a patient with obesity and this was more likely if the nurses believed that individuals could control their weight. Research has even shown that those who are experts in obesity, such as researchers and health professionals demonstrate implicit and explicit bias; although positively the research showed there was a decrease in implicit bias between 2001 and 2013 (Tomiyama et al., 2015). Given the prevalence of both weight stigma amongst healthcare professionals directed at patients and of workplace weight stigma it is proposed that weight stigma between colleagues is likely to occur.

5.2.5 The current study

There is a growing body of evidence examining weight stigma shown by nurses towards patients (e.g. Tanneberger & Ciupitu-Plath, 2018), however there is a lack of research examining workplace weight stigma in this context. There is a need to expand our understanding of workplace weight stigma amongst nurses because of the high prevalence of obesity amongst nurses (Kyle et al., 2017), the negative impact weight stigma has on both psychological and physical health (Wu & Berry, 2018) and because the role stigma plays in addressing obesity may be underestimated and therefore to effectively address the obesity 'epidemic' we also need to address weight stigma (Tomiyama et al., 2018). This is particularly interesting given the professional discourse positing that nurses should be healthy role models (Kelly et al., 2017).

Whilst there is a growing body of literature examining obesity stigma in the workplace, the workplace research that has been conducted has not yet focused on healthcare and in particular nurses. This is an important demographic because Stone, Traynor, Gould and Maben (2011, p. 804) state that "nurses and midwives represent the largest clinical group in the UK NHS." A study by the National Audit Office (2003) found that 53% of total NHS staff suspensions were nurses and midwives who were suspended for a minimum of 1 month. The literature review conducted by Stone et al. (2011) highlights that due to insufficient reporting and the independent status of trusts it is hard to identify how many nurses and midwives have been identified as performing in a non-satisfactory way and how management addresses these concerns. In particular they identified a lack of data relating to suspensions of NHS staff and research in this area. Although national guidance is available to trusts the

implementation of policies and processes will vary at the local level. It is therefore hard to identify the prevalence of disciplinary hearings and the main causes of these.

This study examines weight bias in decisions relating to disciplinary actions amongst nursing managers using a vignette design. A vignette study was conducted because the aim of the study was to examine both attitudes and beliefs and also hypothetical behaviour. The intention was to examine both explicit measures of obesity stigma - as typically investigated in this field – and implicit bias, and vignettes can be used to identify the existence of implicit bias (FitzGerald & Hurst, 2017). In this vignette study, a scale previously employed by Lindeman et al. (2017) was adapted. Lindeman et al. (2017) used this scale to explore how highlighting different causes of obesity would affect disciplinary actions selected in response to an employee making a mistake. The current study used the scale to examine responses to four different scenarios that require a disciplinary action.

In this study the amount respondents associate stereotypical characteristics with being fat is measured by the short form of the Fat Phobia scale (Bacon, Scheltema & Robinson, 2001). Therefore, in this study the stereotypes participants hold about people with obesity are referred to as their fat phobia. Additionally, the measure that was used to examine controllability of obesity was The Beliefs About Obese Persons Scale (Allison, Basile & Yuker, 1991). In this study, both employees with obesity, employees with overweight and employees of an average weight participated because research suggests that even those who are not classified as 'overweight' according to their BMI may experience weight stigma (Vartanian & Shaprow, 2008).

This study is, to our knowledge, the first study to examine weight bias in nursing. Given the existing literature within this area the following hypotheses were predicted.

Hypothesis one: Fat phobia will be negatively associated with BMI
Hypothesis two: Controllability of obesity will be positively correlated with BMI
Hypothesis three: BMI will be positively associated with experience of weight stigma
Hypothesis four: Controllability of obesity will be negatively associated with fat phobia
Hypothesis five: Nursing managers will select harsher consequences for employees with obesity than employees of average weight
Hypothesis six: Fat phobia will be positively associated with harsher disciplinary decisions

Hypothesis seven: Controllability of obesity will be negatively associated with harsher disciplinary decisions

5.3 Method

This study used a vignette design, informed by Ebneter, Latner and O'Brien (2011) & Lindeman et al. (2017).

5.3.1 Participants

Seventy eight participants completed the survey. However, 7 were excluded from the analyses: two participants who stated they were lecturers and 5 participants who did not complete enough variables.

The final sample was 71 UK based nursing managers: 53 females (75%) and 18 males (25%). Data from the UK nursing labour market review (Royal College of Nursing, 2018) showed that 89.3% of the nursing and midwifery registrants were female and 10.7% male therefore this sample had a slightly higher proportion of males. Most of the participants were between 35-44 (27%) and 45-54 (38%). In comparison, the UK nursing labour market review (2019) reports that in 2018, 27.4% of the registrants were 41-50 and 21.7% were 31-40. 73% of the sample was White British, 8% White Irish, 6% Black African, 4% Other White, 3% Indian, 1% White and Black Caribbean, 1% White and Asian, 1% Other Asian and 1% Another Ethnic Group. Recent statistics report that 84% of nurses and health visitors are British, 7.1% report an Asian nationality, 6.4% an EU nationality and 2.3% report an African nationality (Baker, 2019). The majority of the sample were working in the public sector (92%), 4% were working in the private sector and 4% in the voluntary, community and not for profit sector. The UK nursing labour market review (Royal College of Nursing, 2018) reports that in 2018, 75.9% of nurses and midwives were working in a health authority or NHS trust, 3.1% in the charity/voluntary sector, 16.6% in a private firm or business and 4.3% in 'other public sector.' The majority of participants were either a university graduate (41%) or had completed a master's degree (46%). Two of the sample were retired, to be included participants had to have retired in the past two years. Job titles varied amongst the sample and included: charge nurse, matron, junior sister, ward manager and deputy director of nursing. 48% of the sample reported that they had been teased because of their weight, 24% reported that they had been treated unfairly because of their weight and 18% reported that they had been discriminated against because of their weight.

To identify if this was an appropriately sized sample, a power analysis was calculated using G*Power. The power analysis showed that for the Multivariate Analyses of Variances 30 participants was sufficient to have 80% power at 0.05 significance with an effect size of 0.5. The power analysis showed that for the bivariate correlation 67 participants was sufficient to have 80% power at 0.05 significance.

5.3.2 Design and measures

The design was a cross-sectional vignette study. Participants completed four vignettes and a number of other measures.

In this study both explicit and implicit measures of obesity stigma were examined. The measures used to assess anti-fat bias were self-report measures that explicitly measure stereotypes associated with obesity and beliefs about obesity. In comparison, the vignettes were a way of measuring the presence of implicit bias. Phelan et al. (2014, p. 1202) stated that "explicit biases are intentional and conscious and are assessed using self-report measures. Implicit biases are automatically activated, may occur unconsciously, and are typically measured using response-latency tasks." Although vignettes do not specifically measure implicit attitudes, psychologists acknowledge that vignettes can be used to identify the existence of implicit bias (FitzGerald & Hurst, 2017). Typically research in this field has tended to focus on explicit measures, although more recently implicit measures have also been employed. It is proposed that implicit measures do not have the same limitations as explicit measures for example social desirability bias (Flint et al., 2015). In addition, research suggests there may be differences in the levels of implicit and explicit bias demonstrated by individuals (Phelan et al., 2014) and research has called for interventions to address both explicit and implicit anti-fat attitudes (Flint et al., 2015).

Vignettes

Atzmüller and Steiner (2010, p. 128) define a vignette as: "a short, carefully constructed description of a person, object, or situation, representing a systematic combination of characteristics." This experimental vignette methodology study was a paper people study which is defined as "presenting participants with vignettes typically in written form (and hence their name) and then asking participants to make explicit decisions, judgments, and choices or express behavioural preferences" (Aguinis & Bradley, 2014, p. 354). It was proposed that more than four vignettes might result in survey fatigue and four

vignettes have been used in previous research (e.g. Ebneter et al., 2011; Madden & Loh, 2018).

Four vignettes were created in collaboration with a matron at a private hospital. The vignettes described real-life behavioural issues. In line with the recommendation by Gould (1996) that vignettes are checked by an expert panel, once the vignette study was created this was piloted with four nurses and three organisational psychologists. A few amendments were made as a result of the pilot: 'withhold a raise' was changed to 'withhold a pay rise', 'place the employee on probation' was changed to 'place the employee on a performance improvement plan' and the item 'withhold a promotion' was removed. A number of other formatting changes were made.

Each vignette stated a hypothetical situation in which the participant is a nursing manager in the inpatient department of a UK hospital, and they are participating in a panel to help determine the necessary action for employees who have recently displayed behaviour that falls short of the high standards required in this role. Each participant was randomly shown four vignettes, one of each of four behaviours. Each vignette provided a short description of a behaviour, a photo of an employee and a list of behavioural actions the participant could take. There were two versions of each vignette: one had a photo with an individual with obesity and one had a photo with an individual of average weight. Participants were randomly shown one version of each vignette; two vignettes with photos of individuals with obesity and two vignettes with photos with average weight individuals. Examples of the vignettes can be seen in Appendix II. The term 'average weight' has been used to describe the images of the individuals post weight loss surgery as their exact weight is not known however it is clear that they are no longer an individual with obesity. However, the potential issue is that in England 28.7% of adults are individuals with obesity and 35.6% are individuals with overweight (Baker, 2019a) therefore suggesting that in reality the 'average weight' is probably higher than one might expect. However, a range of terms have been used in previous research including 'average weight' (Lindeman et al., 2017).

The four behaviours were:

- Complaints from patients and other members of staff regarding the level of care the employee is providing

- The employee often being on her mobile sending personal texts and checking her social media during her shift
- The employee taking smoking breaks in her uniform resulting in her smelling of smoke when she comes back onto the ward
- The employee consistently arriving late for shifts and arriving late back from breaks

All the photos were of women because research suggests that women are more likely to experience obesity stigma than men (e.g. Fikkan & Rothblum, 2012; Roehling et al., 2007; Puhl, Andreyeva & Brownell, 2008). The photos that were used in the vignettes were images of individuals pre and post weight loss surgery. The individuals were recruited through Instagram and they provided consent for their photo to be used in this research. Other researchers have also used photos of individuals pre and post substantial weight loss (e.g. Himmelstein & Tomiyama, 2015; O'Brien, Latner, et al., 2013) to address the issue that individuals with obesity are often perceived as less attractive so it can be hard to match photos of average weight individuals with individuals with obesity with regards to levels of attractiveness; additionally when photos of individuals have been morphed to make either average weight individuals or individuals with obesity they often appear simulated and therefore increase the likelihood of error (O'Brien et al., 2008).

Measures

Disciplinary actions

This scale was adapted from Lindeman et al. (2017); it was amended based on feedback received in the pilot. This scale was used because it has previously been used to assess disciplinary action, has been shown to have good reliability and examined the behavioural element of stigma.

For each vignette participants were given seven potential disciplinary actions and for each one they had to rate the likelihood that they would choose that action. The seven actions were categorised according to the type of discipline: career-advancement consequence, improvement-focused, formal reprimand and dismissal. They were asked: Using a scale from 1 (not at all likely) to 7 (very likely) based on the information you have been given, as the nursing manager on the panel you would:

- Withhold a pay rise
- Monitor the employee
- Provide mentoring for the employee
- Issue a verbal reprimand
- Issue a written reprimand
- Place the employee on a performance improvement plan
- Terminate employment

Career-Advancement Consequence

One item measured the likelihood of responding with a career-advancement consequence which was "withhold a pay raise." This action differed from the published scale as the item "withhold a promotion" was removed and the wording was changed from "withhold a raise" to "withhold a pay rise."

Improvement-Focused

Two items measured the likelihood of responding with an improvement plan. They were "monitor the employee" and "provide mentoring for the employee" ($\alpha = 0.81$).

Formal Reprimand

Three items measured the likelihood of responding with a formal reprimand. They were "issue a verbal reprimand", "issue a written reprimand" and "place the employee on a performance improvement plan" ($\alpha = 0.87$). This action differed from the published scale as the item "place the employee on probation" was changed to "place the employee on a performance improvement plan."

Dismissal

One item measured the likelihood of responding by dismissal. This was "terminate employment."

Suspicion probe

On completion of the vignettes, participants were asked one question which was a suspicion probe as used in Tauber et al. (2018). The question was "What do you think the research question was for this study?" The answers were coded on suspicion (0 = no, 1 =

yes). It was decided that answers would be coded suspicious if they used the following words: appearance, weight, obesity, bias or equality and diversity. The primary researcher coded the answers. For example, both of these were coded as suspicious: "do overweight staff get more heavily penalised than normal weight colleagues" and "does unconscious bias effect performance management." This measure was used because due to the nature and design of the study it was possible that participants would identify the true purpose of the study and if this occurred it might result in participants giving a socially desirable answer which would impact on the results. Therefore, it was decided it would be useful to identify how many participants were suspicious and this measure had previously been used by Tauber et al. (2018).

Fat phobia

The short form of the Fat Phobia scale (Bacon, Scheltema & Robinson, 2001) was used to measure fat phobia. This is a 14-item scale which examines the amount respondents associate stereotypical characteristics with being fat, for example, lazy, no will-power and weak. Participants are provided with 14 pairs of adjectives and have to select a number (from 1 to 5) that is closest to the adjective they feel best describes their feelings and beliefs. An example pair of adjectives is "no will power" and "has will power." A higher score reflects more fat phobia; specifically, values equal to or lower than 2.5 represent 'positive or neutral attitudes,' values equal to or higher than 2.5 indicate 'negative attitudes' towards a person with obesity and values equal to or higher than 4.4 indicate 'high' levels of fat phobia (Makowski et al., 2019; Swift, Hanlon, et al., 2013). Reliability was sufficient ($\alpha = 0.88$). This measure was used because it has previously demonstrated good reliability and has been used extensively (e.g. Tauber et al., 2018; Swift, Hanlon, et al., 2013; Puhl, Wharton & Heuer, 2009).

Controllability of obesity

One measure was used to examine controllability of obesity. Participants completed The Beliefs About Obese Persons Scale (Allison, Basile & Yuker, 1991). This is an 8-item scale. Respondents rated each statement using a 6-point Likert scale (I strongly disagree to I strongly agree), an example is "Most obese people eat more than nonobese people." Scores range from 0 to 48. Previous research has used this scale in a variety of adult populations, and it has an alpha reliability range of 0.65 to 0.82 (Allison, Basile & Yuker, 1991). Reliability

was questionable ($\alpha = 0.62$), therefore it is suggested that the results are taken with caution. Low scores reflect a stronger belief that obesity is controllable. The belief that obesity is highly controllable is one of the elements of obesity stigma that makes it unique and previous research suggests that individuals who perceive obesity to be highly controllable are more likely to hold anti-fat attitudes (Puhl & Brownell, 2006). This Beliefs About Obese Persons Scale has been used many times in research (e.g. Puhl, Masheb, White & Grilo, 2010; Flint et al., 2015; Tauber et al., 2018; Flint et al., 2016) and has previously shown good reliability.

Experience of weight stigma

Experience of weight stigma was measured using three items as used in Puhl, Quinn, Weisz & Suh (2017). Participants were asked whether they had ever been teased, treated unfairly, or discriminated against because of their weight. 'Yes' responses were coded as 1, while 'no' was coded as 0. The answers were summed to create an experience of weight stigma scale that ranged from 0 (never experienced weight stigma) to 3 (experienced all three types). Cronbach's alpha was not calculated because it isn't appropriate for the measure. This is because these three items measure past experience and therefore it is possible participants may have only experienced one item rather than two or three. Consequently, a low alpha might suggest inconsistent responding or poor reliability but in reality, the responses may reflect legitimate experiences of different people. This measure of weight stigma has previously been used in other studies with diverse samples (Puhl et al., 2017; Puhl, Heuer & Sarda, 2011; Himmelstein, Puhl & Quinn, 2018).

Demographic questions

Participants reported their gender, ethnicity, age, weight, height, sector, highest level of education completed and job title. Table 5.1 displays the sample demographics.

BMI

The 71 respondents had a mean BMI of 28.26 kg/m ^{2} (SD = 5.59). This was calculated using self-reported height and weight. Using the NHS BMI categories, 1 respondent was underweight (1%; BMI < 18.5), 23 respondents were healthy (32%; BMI 18.5-24.99), 21 respondents were overweight (30%; BMI 25-29.99), 18 were obese (25%; BMI 30-34.99) and 8 were severely obese (11%; 35-39.9). In their cross-sectional study Kyle et al. (2017) reported that 39% of their sample were nurses with a BMI which was lower than

25 (they did not specify the proportion who were unhealthy or healthy), 36% were nurses with overweight and 26% were nurses with obesity (as defined by a BMI greater than or equal to 30). Proportionally, the sample in the present study had a higher number of participants with obesity.

Procedure

This cross-sectional study was completed over 4 months and participants were recruited using opportunity sampling through word of mouth, advertising via Twitter and via emails. Participants were asked to complete an online survey including some short scenarios to understand how decisions relating to disciplinary actions are made and the factors that impact on these decisions. Participants were provided with a participant information sheet and had to provide consent in order to start the online survey. Once participants had read the information sheet and consented to participate, they were shown the vignettes. The vignettes were presented randomly, and each participant saw four vignettes – two with individuals with obesity and two with individuals of average weight. For each vignette, participants were provided with seven disciplinary actions from which they had to choose. After completing four vignettes, participants completed a number of measures – the short form of the Fat Phobia scale, the experience of weight stigma scale, the Beliefs About Obese Persons scale and demographic questions. Participants were not offered an incentive to participate. Ethical approval was obtained from the Research Ethics Committee of the Faculty of Business and Social Sciences at Kingston University London. In adherence to the British Psychological Society's Code of Human Research Ethics, participants were informed that they could withdraw their data from the study without giving any reason and confidentiality was assured. In addition, participants were informed that data would be stored securely in accordance with GDPR.

Statistical analysis

Analyses were conducted using SPSS version 24. Each vignette included a specific scenario which related to disciplinary actions and was considered separately in the analysis to identify overall trends in behaviour, rather than compare between scenarios. A series of Multivariate Analyses of Variances (MANOVAs) were conducted to examine the four dependent variables investigated in each vignette. As all participants saw all four vignettes, separate MANOVAs were conducted for each vignette. Correlations were conducted to examine the associations between all dependent variables. The Bonferroni correction was

applied to reduce the risk of type I errors due to the high number of variables. The aim of the study was to see if there was a difference in participants' choice of disciplinary actions for employees with obesity compared to employees of average weight across a variety of scenarios. Therefore, the purpose was to assess for obesity stigma in both attitudes and hypothetical behaviours rather than comparing whether different employee behaviours affect obesity stigma.

Correlations were conducted and are shown in Table 5.3. Four between-subjects one-way MANOVAs were also conducted, one for each vignette, to establish if choice of disciplinary actions (career advancement focused, improvement focused, formal reprimand and dismissal) varied between employee weight status: average weight versus obese. Means and standard deviations for these MANOVAs are reported in Table 5.4. The survey software showed participants the different vignettes in a random order and an equal number of participants were shown the vignettes. However, in all four MANOVAs there were unequal groups because whilst an equal number of participants were shown the vignettes, the removal of seven participants due to incomplete data and ineligibility resulted in unequal groups. However, these unequal groups were within the bounds of statistical acceptability (Field, Miles & Field, 2012; Allen & Bennett, 2007).

5.4 Results

Table 5.1: *Sample demographics*

Category		N = 71	Percentage (%)
Age	25-34	13	18
	35-44	19	27
	45-54	27	38
	55-64	10	14
	Over 65	2	3
Gender	Female	53	75
	Male	18	25
BMI	Underweight	1	1
	Healthy weight	23	32
	Overweight	21	30
	Obese	18	25
	Severely obese	8	11
Ethnicity	White British	52	73
	Other White	3	4
	Another Ethnic Group	1	1
	Indian	2	3
	White Irish	6	9
	White and Black Caribbean	1	1
	White and Asian	1	1
	Black African	4	6
	Other Asian	1	1
Sector	Public sector	65	92
	Private sector	3	4
	Voluntary, community and not for profit	3	4
Education level	GCSE or equivalent	1	1
	A Levels	1	1
	University graduate	29	41
	Master's degree	33	46
	Professional or Doctorate Degree	5	7
	Other	2	3

Table 5.2: *Descriptive statistics*

Experience of weight stigma	N = 71	Percentage (%)					
Teased because of their weight	34	48					
Treated unfairly because of their weight	17	24					
Discriminated against because of their weight	13	18					
Controllability of obesity (the Beliefs About Obese Persons scale)	N	Range	M	SD			
	71	2-33	18.2	6.74			
Fat Phobia (Short form)	N	Range	Mean	*SD*	Score ≤ 2.5 (%)	Score > 2.5 < 4.4	Score ≥ 4.4 (%)
	71	2.2-4.9	3.32	.48	2.8%	91.5%	5.6%

Table 5.2 shows that many of the sample had experience of weight stigma including being treated unfairly because of their weight and being discriminated against because of their weight. In their sample of 1114 Americans, Puhl, Heuer and Sarda (2011) found that 40% reported being teased about their weight, 23% reported being treated unfairly because of their weight and 17% reported being discriminated against because of their weight. The sample from the present study shows a slightly higher percentage report being teased because of their weight however, the other results are very similar. Amongst, a sample of men, including one sample of men with obesity who were at more risk of weight stigma, Himmelstein, Puhl and Quinn (2018) found that 36% reported being teased, 23% reported being treated unfairly and 19% reported being discriminated against. The findings from this study are in line with previous findings.

Table 5.2 shows that the mean score on the Beliefs About Obese Persons scale (BAOP) was 18.2. In their study investigating 2380 UK adults' implicit and explicit attitudes towards obesity, Flint et al. (2015) found that the mean score for BAOP was 14.65. Flint et al. (2016) reported that in their sample of 181 employees from Czech Republic, Slovenia and

the UK the mean BAOP was 22.79. Scores on the BAOP scale range from 0 to 48 and low scores reflect a stronger belief that obesity is controllable. The lower score seen in the present study suggests the sample tend to have stronger beliefs that obesity is controllable.

Table 5.2 demonstrates that only 2.8% of the sample show 'positive or neutral attitudes.' 91.5% of the sample demonstrate 'negative attitudes' towards a person with obesity and disconcertingly, 5.6% of the sample demonstrate 'high' levels of fat phobia. In their study, Swift, Hanlon et al. (2013) reported that 1.5% of their student sample registered on the Master of Nursing Science demonstrated 'neutral attitudes' and 10.2% demonstrated 'high' levels of fat phobia; they also reported that 0.7% of their student sample on the nursing BSc demonstrated 'neutral attitudes' and 8.7% demonstrated 'high' levels of fat phobia. They did not report the percentage who demonstrated 'negative attitudes.'

5.4.1 Suspicion probe

Coding of the suspicion probe demonstrated that a significant proportion of the sample had some suspicion regarding the purpose of the study. Of the 63 respondents who answered this question 22 (35%) were coded as suspicious. Given the sample size, removing all these participants would reduce statistical power to a significant degree. Therefore, despite recognising the risks to the results, the decision was taken to retain these participants.

5.4.2 Correlations

Table 5.3 displays the correlations between the dependent variables. After applying the Bonferroni correction, many of the correlations were non-significant. However, a couple of correlations were approaching significance. For example, the relationship between BMI and experience of weight stigma approached significance, those with a higher BMI were more likely to report experience of weight stigma. Similarly, those participants that held greater fat phobia against others were more likely to choose to terminate the employment of an individual in the late vignette, and this association was approaching significance.

Table 5.3: *Correlations between dependent variables*

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.
1. Controllability of obesity	-	-.102	-.020	.069	-.009	.183	.141	-.140	.027	.069	.151	-.069	-.041	. 238	.089	.242	.043	-.014	-.037	-.002
2. Fat phobia		-	-.048	-.025	.081	.057	.089	-.074	.058	.184	.002	.074	.038	.004	.045	.280	-.001	-.028	-.081	.026
3. BMI			-	.288	.013	.111	-.042	.084	.023	.003	.083	.120	-.045	.053	-.154	.014	-.055	-.145	-.241	.049
4. Experience of weight stigma				-	.041	.161	.029	.272	.098	.049	.087	.273	.017	.205	-.093	.139	.162	.011	.025	.192
5. Social career-advancement					-	.184	.470*	.565*	.879*	.216	.411*	.074	.861*	.245	.293	.181	.595*	.071	.188	.276
6. Social improvement-focused						-	.316	.190	.192	.696*	.302	.072	.139	.710*	.334*	.207	.102	.535*	.242	.181
7. Social formal reprimand							-	.405*	.396*	.389*	.617*	.094	.292	.330*	.729*	.323	.296	.256	.462*	.346*
8. Social dismissal								-	.615*	.217	.343*	.199	.556*	.202	.267	.080	.372*	.122	.252	.556*
9. Smoking career-advancement									-	.233	.387*	.199	.837*	.246	.226	.242	.553*	.085	.066	.321
10. Smoking improvement-focused										-	.273	.114	.184	.615*	.332*	.146	.087	.375*	.034	.147
11. Smoking formal reprimand											-	.258	.280	.242	.648*	.182	.279	.196	.376*	.196

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.
12. Smoking dismissal												-	.130	.143	.155	.288	.106	.087	.067	.147
13. Late career-advancement													-	.268	.251	.163	.675*	.134	.159	.259
14. Late improvement-focused														-	.296	.200	.293	.612*	.185	.193
15. Late formal reprimand															-	.313	.230	.405*	.596*	.316
16. Late dismissal																-	.385*	.139	.260	.558*
17. Level of care career-advancement																	-	.192	.336*	.462*
18. Level of care improvement-focused																		-	.412*	.087
19. Level of care formal reprimand																			-	.376*
20. Level of care dismissal																				-

*Note: *p<0.0025*

Hypothesis one: Fat phobia will be negatively associated with BMI. There was a negative correlation between fat phobia and BMI, however this was not significant (r = -.048, p = .345). Although those participants that held more fat phobia were more likely to have a lower BMI, this was not statistically significant.

Hypothesis two: Controllability of obesity will be positively correlated with BMI. The results showed a non-significant negative correlation between controllability of obesity and BMI (r = -.020, p = .433), therefore those that held stronger beliefs that obesity is more controllable were more likely to have a higher BMI. This correlation is not in line with the expected direction.

Hypothesis three: BMI will be positively associated with experience of weight stigma. There was a non-significant positive correlation between BMI and experience of weight stigma (r = .288, p = 0.007). Therefore those with a higher BMI were more likely to report having experienced weight stigma, although this was not statistically significant.

Hypothesis four: Controllability of obesity will be negatively associated with fat phobia. There was a negative correlation between controllability of obesity and fat phobia, however this was not significant (r = -.102, p = .198). Therefore, although not statistically significant, those that held stronger beliefs that obesity is controllable were more likely to have greater fat phobia.

Hypothesis five: Nursing managers will select harsher consequences for employees with obesity than employees of average weight. The four types of disciplinary actions are: career-advancement consequence, improvement-focused, formal reprimand and dismissal. The results below show that for each of the vignettes there was no significant effect of weight on disciplinary decisions taken.

For the mobile phone/social media and late vignettes: 37 participants saw the employee with obesity and 34 saw the average weight employee and for the smoking and level of care vignettes: 34 participants saw the employee with obesity and 37 saw the average weight employee.

Mobile phone/social media vignette

The one factor Multivariate Analysis of Variance (MANOVA) showed no significant main effect of weight on disciplinary decisions taken (F4, 66) = 1.90, p = .121.

Smoking vignette

The one factor Multivariate Analysis of Variance (MANOVA) showed no significant main effect of weight on disciplinary decisions taken (F4, 66) = .94, p = .447.

Level of care vignette

The one factor Multivariate Analysis of Variance (MANOVA) showed no significant main effect of weight on disciplinary decisions taken (F4, 66) = 1.08, p = .372.

Late vignette

The one factor Multivariate Analysis of Variance (MANOVA) showed no significant main effect of weight on disciplinary decisions taken (F4, 66) = .90, p = .469.

Tables 5.4 shows the means and standard deviations for the average weight employee and the employee with obesity for each of the disciplinary actions for each vignette.

Table 5.4: *Disciplinary action means*

Mobile phone/social media vignette						
Type of disciplinary action	Average weight employee			Employee with obesity		
	n	M	*SD*	n	M	*SD*
Career-advancement consequence	34	1.91	1.68	37	1.68	1.13
Improvement-focused	34	5.40	1.22	37	6.03	1.29
Formal reprimand	34	3.68	1.49	37	3.45	1.67
Dismissal	34	1.32	1.07	37	1.11	.52
Smoking vignette						
Type of disciplinary action	Average weight employee			Employee with obesity		
	n	M	*SD*	n	M	*SD*
Career-advancement consequence	37	1.68	1.36	34	1.53	1.35
Improvement-focused	37	5.09	1.36	34	5.28	1.72
Formal reprimand	37	4.07	1.39	34	3.76	1.51
Dismissal	37	1.08	0.28	34	1.21	0.54
Late vignette						
Type of disciplinary action	Average weight employee			Employee with obesity		
	n	M	*SD*	n	M	*SD*
Career-advancement consequence	34	1.71	1.47	37	1.97	1.42
Improvement-focused	34	5.82	1.43	37	5.74	1.01
Formal reprimand	34	4.31	1.61	37	3.79	1.52
Dismissal	34	1.24	0.61	37	1.14	0.35
Level of care vignette						
Type of disciplinary action	Average weight employee			Employee with obesity		
	n	M	*SD*	n	M	*SD*
Career-advancement consequence	37	2.19	1.63	34	2.32	1.85
Improvement-focused	37	6.54	.93	34	6.66	.59
Formal reprimand	37	4.04	1.57	34	3.51	1.61
Dismissal	37	1.38	1.14	34	1.26	1.05

Hypothesis six: Fat phobia will be positively associated with harsher disciplinary decisions. The results showed a non-significant correlation between fat phobia and dismissal in all four vignettes. Although there was a positive association between fat phobia and dismissal in the late vignette which approached significance (r = .280, p = .009), therefore those participants that held more fat phobia against others would be more likely to choose to terminate the employment of an individual in the late vignette than those with lower levels of fat phobia, however this was not statistically significant.

Hypothesis seven: Controllability of obesity will be negatively associated with harsher disciplinary decisions. The results showed a non-significant correlation between controllability of obesity and dismissal in all four vignettes; controllability of obesity and dismissal in the mobile/social media vignette (r = -.140, p = .121), controllability of obesity and dismissal in the smoking vignette (r = -.069 , p = .283), controllability of obesity and dismissal in the late vignette (r = .242 , p = .021), and controllability of obesity and dismissal in the level of care vignette (r = -.002, p = .492).

5.5 Discussion

The present study aimed to address a gap in the literature by examining weight stigma in disciplinary decisions amongst nursing managers. To our knowledge it is the first study to have examined weight stigma and disciplinary decisions in this population. The results showed that zero of the seven hypotheses were supported, however some of the results were approaching significance.

Interestingly, 66% of the sample, were categorised as overweight, obese or severely obese as measured by their BMI. This is in line with previous research which has demonstrated a high prevalence of obesity in nurses (e.g. Kyle et al., 2017; Kyle, Neall & Atherton, 2016). The results also highlighted that the mean fat phobia score was 3.32. A score of 2.5 or higher indicates 'negative attitudes' towards a person with obesity (Makowski et al., 2019; Swift, Hanlon et al., 2013) therefore suggesting that this sample demonstrates negative attitudes. Supporting this, the results showed that although participants that held fat phobia were more likely to have a lower BMI this was a non-significant finding suggesting that those with a high BMI also held fat phobic attitudes. These findings are important as the combination of both the high prevalence of nurses with overweight and obesity and the mean fat phobia score of 3.32 suggests that internalised weight stigma may exist, it also provides evidence for the pervasiveness of weight stigma.

As hypothesised, there was a positive correlation between BMI and experience of weight stigma although this finding was not significant it was approaching significance. This supports previous studies that have used this measure which have also identified a relationship between BMI and weight stigma (e.g. Himmelstein, Puhl & Quinn, 2018). Interestingly, research also suggests that even those who are not classified as 'overweight' according to their BMI may experience weight stigma (Vartanian & Shaprow, 2008). In addition, the finding from the present study supports the growing body of research demonstrating that weight stigma exists in various forms (e.g. teasing, being treated unfairly and being discriminated against). In this study, 48% reported being teased because of their weight, 24% reported being treated unfairly because of their weight and 18% reported being discriminated against because of their weight. Further research could explore the perpetrators of weight stigma (e.g. family members, strangers, colleagues, bosses and/or health professionals). In particular, further qualitative research is required to understand the experience of weight stigma in UK organisations.

The results also highlighted two interesting non-significant findings: Firstly, controllability of obesity was negatively correlated with BMI. This correlation was not in the expected direction as this finding suggests that higher BMI participants were more likely to believe that obesity is highly controllable. One explanation for this finding is the high percentage of females in this sample as research has found that females have demonstrated greater beliefs that obesity is controllable (Flint et al. 2015). This result may also be a consequence of internalised weight stigma, which is defined as "blaming oneself for societal devaluation and stigmatization because of one's weight" (Puhl, Himmelstein, Gorin & Suh, 2017, p. 27). The correlation may therefore be as a result of individuals with obesity having internalised stereotypes against their in-group and displaying weight bias or anti-fat attitudes towards themselves (Puhl et al., 2007). Supporting this, the results showed a non-significant relationship between fat phobia and BMI which may suggest that those with a high BMI also held fat phobic attitudes. It would be useful in further research to add a measure of weight bias internalisation to explore the relationships associated with this variable.

Secondly, another non-significant finding was that controllability of obesity was negatively associated with fat phobia, although the direction of the relationship was as expected and in line with previous research (e.g. Flint et al., 2015). This finding can be explained through the lens of attribution theory (Heider, 1958) in which individuals look for internal or external causes to explain outcomes and, in this context, obesity is attributed to causes that the individual can control. Supporting this, research suggests that individuals are more likely to display negative attitudes towards individuals with obesity when they internally attribute causes of weight and believe that it can be controlled through willpower, diet and exercise (Crandall, 1994). Additionally, in their recent research, Tauber et al. (2018) found that workplace health promotion programmes that highlighted individual responsibility were associated with greater weight-based discrimination which has implications for workplace wellbeing initiatives and the potential negative unintentional impact of these.

One of the key findings from this study was that there were no significant differences between the disciplinary actions selected for employees with obesity and employees of average weight (i.e. there was no evidence to support obesity discrimination in disciplinary decisions). A number of factors could explain the results. Firstly, although findings showed that nursing managers demonstrated fat phobia i.e. stereotypical beliefs, this did not appear to translate into discriminatory behaviour. Similar results have been found in a recruitment

context; Polinko and Popovich (2001) found that although their results suggested that participants have biases against employees with obesity they did not discriminate in their behaviour. It was suggested that the results may demonstrate a lack of consistency between attitudes and behaviours (LaPiere, 1934). Haddock and Maio (2004) suggested that attitudes do predict behaviour, but this is dependent on specific conditions, for example the strength of the attitude, the subject the research is examining and the similarity of the measures. Polinko and Popovich (2001) proposed that they found non-significant results because there was inconsistency between the attitude scale and their behavioural measure which could explain the findings in the present study. Secondly, an alternative explanation could be that, the sample population in this study were all managers and this level of experience may impact whether they display bias i.e. they are aware of bias as a concept and focus more clearly on performance and evidence; some research suggests that more experienced managers are less likely to display gender and attractiveness biases in the recruitment context (Marlowe, Schneider & Nelson, 1996). Thirdly, with the increased organisational focus on diversity and inclusion (Chartered Institute of Personnel and Development, 2019) it is possible that managers may have increased awareness about discrimination and unconscious bias. Further research could usefully explore the role of weight stigma in decisions about disciplinary actions comparing both junior nurses and more senior nurses. Fourthly, another possible explanation of these findings is that participants may have identified the real purpose of the study as 35% of the suspicion probe answers were coded as suspicious. Therefore, respondents might have displayed social desirability bias and responded in a way that would ensure they were viewed favourably by the researchers (i.e. not demonstrating obesity stigma).

As hypothesised, the results did show that greater fat phobia was related to participants reporting being more likely to choose the dismissal disciplinary action, however this was only in the late vignette and this finding was not significant although it was approaching significance. This is of interest because this result was only seen in the late vignette and only with the harshest disciplinary action. Although previous research has found that anti-fat bias predicts obesity discrimination (O'Brien, Latner, et al., 2013) this finding suggests that discrimination may not always occur and may vary depending on both the employee behaviour and type of disciplinary action. In their study, Lindeman et al. (2017) identified that when participants were shown messages about the controllable causes of obesity, the disciplinary action 'career advancement consequence' was the only action which

participants responded differently to depending on whether the employee was an employee with obesity or an average weight employee, no differences were shown in the other three types of disciplinary actions. The present study was novel but limited in what could be examined so further research is required to explore how the vignette scenario may influence the disciplinary decisions and to explore obesity stigma in this context because there has been a paucity of research in this area. Further research could explore whether the type of behaviour affects the disciplinary actions chosen and the weight stigma demonstrated.

5.5.1 Limitations

There are a number of limitations of this study. Firstly, study design limitations will be explored, secondly, impact limitations and thirdly data limitations.

Examining study limitations, firstly, the scales are self-report which may result in social desirability bias. However, self-report increases feasibility of data collection and enables data to be collected anonymously which may increase participation rates. Additionally, although it is self-report this study provides insight into a novel and important population especially in the context of increasing obesity. Secondly, in the vignettes, weight was not specified. Therefore, the study was very dependent on participants' perceptions of the weight of the 'employee' in the photo and in the 2015 British Social Attitudes survey (NatCen Social Research, 2016) the results showed that when individuals have to choose to identify 'obesity' from body image scales they do not always do this correctly; although they found that participants were better at recognising obesity in women. To conceal the purpose of the study and to make the study more realistic weight was not specified. It made it more realistic because in an organisation only certain employees would have access to information about the weight of a colleague. Additionally, the method employed has been used previously and the photos used in this study were real life pre and post weight loss photos because when photos of individuals have been morphed to make either average weight individuals or individuals with obesity they often appear simulated (O'Brien et al., 2008).

Thirdly, as all participants saw all four vignettes it meant that it was not possible to compare between the vignettes which would have provided further information about the effect of the different behaviours on obesity stigma. However, it enabled initial exploration of obesity stigma in a range of scenarios. Fourthly, the suspicion probe suggests that a high number of the sample guessed the true nature of the study therefore raising questions about

whether their responses were altered by social desirability bias. However, 65% of the sample did not provide a suspicious answer when asked about the research question and as this was an initial study it still provides insight into a unique area. Fifthly, there are limitations associated with vignette studies, for example, some nursing managers may not have experience of participating in disciplinary panels subsequently, there are differences in terms of their actual experience and the vignette scenario (Hughes & Huby, 2002). However, the vignette design enables access to populations that may be hard to access (Hughes & Huby, 2002) and enables researchers to identify the existence of implicit bias (FitzGerald & Hurst, 2017).

Finally, as this was a hypothetical study it was limited by the situation. The study could only investigate hypothetical behaviour and in a real-life disciplinary scenario it is likely that more information about the employee being disciplined would be provided and/or the panel may already have a working relationship with the employee. Field research is required to further explore this topic.

Examining impact limitations, the present study examined weight stigma directed at women because research suggests that women are more likely to experience obesity stigma than men (e.g. Fikkan & Rothblum, 2012; Roehling et al., 2007; Sattler, Deane, Tapsell & Kelly, 2018) however some research suggests that this is not the case (Himmelstein, Puhl & Quinn, 2018). It would be useful to further explore weight stigma directed at men.

Examining data limitations, another limitation is the sample size. Although a power analysis was conducted using G*Power and the sample size was deemed sufficient, the sample size was quite small which decreased the statistical power. However, the sample was a specific population and as a result it proved challenging to recruit.

5.5.2 Implications for further research and practice

Even though the present study did not provide evidence of obesity discrimination with regards to disciplinary decisions, it highlighted that levels of fat phobia exist amongst nursing managers that suggest negative attitudes towards employees with obesity. Further research should explore the complex relationship between fat phobia and discrimination to enable researchers to better understand why negative attitudes may not always result in discriminatory behaviour. In addition to the levels of fat phobia which suggest ‘negative

attitudes' towards individuals with obesity this study also highlights the high prevalence of overweight and obesity in this sample, these two findings taken together suggest that there may be internalised weight stigma. One implication is therefore for workplace weight management interventions – these should be seen as a potential environment in which to discuss both the experiences of weight stigma and effective coping mechanisms. Another implication is to provide training for nurses to reduce fat phobia, this has the potential to positively impact on interactions with colleagues in addition to patients. Similar to many studies researching this topic, this was a hypothetical study and further research is required to explore real life experiences of employees, in particular the less researched areas of the employment cycle.

5.6 Conclusions

This study offered new insights into the role of obesity stigma in the workplace. The findings highlight the prevalence of both fat phobia and obesity amongst nursing managers. Although in this study the nursing managers did not display obesity discrimination the prejudices and stereotypes they hold have the potential to impact on both colleague and patient interactions. Further research is required to explore real life experiences of weight stigma at work in a more generalised sample in the UK.

Chapter 6: Obesity stigma in the UK workplace – A thematic analysis (Study 3)

6.1 Abstract

Research examining the experiences of an individual with obesity once they are within an organisation, especially in the UK, is lacking. This study extends previous research by drawing from a diverse sample, including employees with obesity, within a UK working sample. Twenty one UK employees participated in cross-sectional telephone interviews. The findings highlight the diverse range of obesity stigma individuals with obesity are subjected to in the workplace. Five overarching factors that impact on obesity stigma in the workplace were also identified. In addition, insights into how obesity stigma at work can be overcome included changes at both the societal and organisational level. These findings suggest obesity stigma is experienced in a range of ways and that one of the key factors to impact on obesity stigma is the experience of working with employees with obesity. Research exploring the mechanisms by which anti-fat attitudes are changed, and trialling interventions designed to overcome weight bias in an organisational context, are required if we are to effectively tackle obesity stigma in UK workplaces. This research addresses a gap in the literature by understanding the experiences and beliefs of those with obesity, those with whom they work and those who influence policies and practices in the UK workplace. Understanding these experiences and beliefs is crucial to addressing obesity stigma.

6.2 Introduction

As discussed in the previous chapters of the thesis, there is a growing body of evidence to suggest that obesity stigma is prevalent in the workplace and impacts upon employment outcomes (Roehling, 1999; Puhl & Brownell, 2006; Puhl, Andreyeva & Brownell, 2008). Stigma consists of prejudice (emotional bias), stereotypes (mental bias) and discrimination (behavioural bias) (Fiske, 2020). Specifically, obesity or weight stigma has been defined as "negative weight-related attitudes and beliefs that are manifested by stereotypes, rejection and prejudice towards individuals because they are overweight or obese" (Puhl, Moss-Racusin, Schwartz & Brownell, 2008, p. 347). Discrimination may be displayed in a variety of ways, from "microaggressions" when individuals with obesity experience subtle differences in how they are treated, to explicit/direct discrimination, e.g. an individual with obesity not being successful in the recruitment process because of their weight (Pearl, 2018).

6.2.1 Insights from the systematic literature review

The first study, the systematic literature review, sought to examine the existing evidence for obesity stigma in the workplace. Thirty eight studies were identified which met the eligibility criteria. The key findings identified from the review were that the available evidence for obesity stigma in the workplace is promising, however much of the research has focused on the recruitment stage of the employment cycle and limited research has been conducted to explore the mechanisms of obesity stigma. The review also highlighted a number of limitations of the existing research; over half the studies used student populations, the majority of the research was based on hypothetical situations and 30 out of 38 studies were conducted in the US. Yet, it is not possible to know whether the results can be generalised to other cultural contexts. Additionally, 14 of the studies were conducted prior to 2000, yet today there is a greater focus on healthy living and healthy workplaces so it is not possible to know whether these findings would translate to today's workplaces.

To address some of these limitations, a vignette study was conducted to explore obesity stigma in decisions relating to the performance management stage of the employment cycle, specifically disciplinary actions. The sample was a working sample of UK based nursing managers.

6.2.2 Insights from the vignette study

Seventy one UK based nursing managers completed the online survey. The findings showed that there was a high prevalence of both fat phobia and obesity amongst nursing managers and a positive association between BMI and experience of weight stigma which was approaching significance. The results suggest that nursing managers did not display obesity discrimination, however the results showed a positive association approaching significance between fat phobia and harsher disciplinary decisions in the vignette that described an employee who was consistently arriving late for shifts and arriving late back from breaks.

Although the results showed that nursing managers demonstrated fat phobia (i.e. stereotypical beliefs), this did not appear to translate into discriminatory behaviour. A number of reasons were proposed for this finding and were explored in chapter 5. For example, managerial experiences may have influenced the results as research has shown that experienced managers are less likely to display gender and attractiveness biases in the

recruitment context (Marlowe, Schneider & Nelson, 1996). Further research is therefore required to explore experiences of obesity stigma in the workplace with a range of employees both from those who may have demonstrated obesity stigma and those who may have experienced obesity stigma. In addition, the results from the vignette study showed that although participants who held fat phobia were more likely to have a lower BMI this was a non-significant finding suggesting that those with a high BMI also held fat phobic attitudes. It is proposed that this finding may be because individuals with obesity have internalised stereotypes against their in-group and display weight bias or anti-fat attitudes towards themselves (Puhl et al., 2007). Further research is required to better understand whether individuals with overweight and obesity display weight bias or anti-fat attitudes towards others with obesity and towards themselves.

Although the correlation was non-significant, the finding in study two that participants with a higher BMI were more likely to believe that obesity is highly controllable was not in the expected direction as it is thought that those with experience of overweight and obesity would believe that obesity is less controllable. This finding could be explained by some of the cultural values seen across society e.g. healthism (Crawford, 1980). One of the key aspects of healthism is the emphasis on the individual responsibility which is linked with the perceived controllability of obesity. Within the workplace wellbeing setting, research has demonstrated that workplace health promotion programmes that highlighted individual responsibility were associated with greater weight-based discrimination (Tauber et al., 2018). It has also been postulated that there is a link between the educational approach to health promotion, which emphasises individual level lifestyle change and moralisation (Brown, 2018) and research has shown that moralisation of obesity is a predictor of obesity stigma (Ringel & Ditto, 2019). Given the current focus on wellbeing in today's workplaces, further research is required to understand the experiences of individuals in organisations and to explore the attitudes and beliefs of individuals with obesity and whether these are indicative of the cultural value of healthism.

Another finding from study 2 was that 48% of the sample reported that they had been teased because of their weight, 24% reported that they had been treated unfairly because of their weight and 18% reported that they had been discriminated against because of their weight. This scale was not specific to the workplace and further research is required to explore the perpetrators of weight stigma (e.g. family members, colleagues, bosses and/or

health professionals). As research suggests that employment is one of the many contexts in which obesity stigma is experienced further research is required to understand the experiences and beliefs of those with obesity, those with whom they work and those who influence policies and practices in the UK workplace.

6.2.3 Informing the design of study 3

The present study was therefore designed and developed based on the findings from study 1 and study 2. It aimed to further build on the obesity stigma at work literature and to specifically address some of the limitations identified in study 1 and study 2. Study 3 is therefore a field study examining experiences of obesity stigma throughout the employment cycle, conducted amongst a working UK based sample who were a variety of employees – both in terms of their body size and their job roles.

6.2.4 The present study

Research examining the experiences of an individual with obesity once they are within an organisation, especially in the UK, is lacking. Williams and Annandale (2018) noted that many of the obesity stigma measures focus on behaviour rather than subjective experiences. Furthermore, individuals with obesity have often been excluded from participation (e.g. Puhl, Himmelstein, Gorin, & Suh, 2017; Puhl, Moss-Racusin, Schwartz & Brownell, 2008). Understanding the experiences and beliefs of those with obesity, those with whom they work and those who influence policies and practices in the UK workplace is crucial if we are to address obesity stigma.

This study extends previous research by drawing from a diverse sample, including employees with obesity, within a working UK sample and aimed to:

1. Understand the experience of obesity stigma in UK workplaces
2. Identify the factors that impact on obesity stigma in the workplace
3. Offer insights into how obesity stigma at work can be overcome to inform the development of effective evidence-based interventions to address obesity stigma.

6.3 Method

6.3.1 Participants

Participants were recruited using opportunity sampling through word of mouth, advertising via Twitter, charities and institutions and emails. In total 21 UK employees participated in the study.

6.3.2 Procedure

Cross-sectional telephone interviews were conducted using a different but aligned interview proforma with three participant groups: employees with obesity, employees of diverse body sizes and Human Resources and Occupational Health professionals. The interview proformas were informed by findings from study 1, a systematic literature review (Godfree, Lewis, Yarker & Donaldson-Feilder, under review), study 2, a vignette study, and the wider literature; they were developed through iterative reviews by the research team. Telephone interviews were chosen as the interview method for a number of reasons. Firstly, they enabled the researcher to interview participants who were located in different areas of the country. Secondly, they allowed participants to remain on "their own turf" (McCoyd & Kerson, 2006, p. 399), which may result in participants feeling more relaxed and more comfortable discussing sensitive topics such as this research topic. Telephone interviews may also help to increase privacy and decrease social pressure (McCoyd & Kerson, 2006). All participants consented to their interview being recorded and were informed that only the research team would have access to their data. Semi-structured interviews were used because they allow comparable qualitative data to be collected whilst also providing some flexibility in enabling researchers to further explore certain comments or questions that may arise during the interview. Prior to the interview, participants were provided with the interview questions and a consent form which required them to provide demographic information including self-reported weight and height. Their BMI was then calculated by the researcher. In adherence to the British Psychological Society's Code of Human Research Ethics, participants were informed that they could withdraw their data from the study without giving any reason. Confidentiality and anonymity were assured, and efforts were made to ensure that candidates did not disclose information that they did not feel comfortable in so doing. In addition, all the data was collected, processed and stored in accordance with GDPR. The interviews were recorded, anonymised and transcribed by the primary researcher.

6.3.3 Analytic method

Thematic analysis was chosen as the analytic method due to its flexibility and because the aim of the research was to give a rich description of the patterns across the whole data set. Thematic analysis has been proposed as a valuable process for achieving this particularly in under-researched topics (Braun & Clarke, 2006). NVivo 12 (2018) was used to analyse the data.

To answer the research aims the researchers took an inductive approach, enabling codes and themes to be developed from the data rather than using an existing model or coding framework.

The theoretical stance taken was critical realism, which is defined by Creswell and Plano Clark as:

> An integration of a realist ontology (there is a real world that exists independently of our perceptions, theories, and constructions) with a constructivist epistemology (our understanding of this world is inevitably a construction from our own perspectives and standpoint) (2011, p. 45).

The analysis was therefore inductive thematic analysis at a semantic level through a critical realist stance.

To identify themes to answer the three research aims the researchers followed the guide detailed in Braun and Clarke (2006).

Familiarising yourself with the data: The primary researcher was very familiar with the data having conducted and transcribed the interviews. However, all the transcripts were re-read and checked to enable the researcher to develop some initial thoughts.

Generating initial codes: Five interviews were coded, and initial codes were generated. These were fairly broad. The interviews and codes were reviewed with another researcher to sense check the data. At this point, no changes were made to the coding framework.

Searching for themes: A further three interviews were coded using the initial coding and the codes were then collated and sorted into provisional themes. This resulted in 18 themes. A mind map was developed to discuss the initial themes with another researcher. In the

discussions it was clear that some of the 18 themes identified as main themes were sub-themes, therefore the themes were refined. This iterative process resulted in the final 12 themes.

Reviewing themes: The final 13 interviews were coded and themed. The 12 themes were then reviewed against the full data set to ensure that the themes reflected the data.

The data set was examined together, using the same coding framework, rather than at the group level for a number of reasons: the majority of research in this field has examined obesity stigma through the lens of one group in isolation (e.g. HR professionals, and tends to examine it experimentally). The qualitative research that has been conducted tends to focus solely on the experiences of employees with obesity. The aim of this research was to provide a broader picture across the different participant groups to understand a variety of perspectives, not only from those that have experienced obesity stigma but also those that have seen it, those that have demonstrated it, and those that work within HR/OH. Therefore, themes across the whole data set were identified rather than analysing the data at the participant group level.

In addition to analysing the data to address the three research aims, the data was also analysed using the model developed from the systematic literature review in chapter 4. The model of obesity stigma in the workplace was used as a framework and the interview data was mapped against the framework.

6.4 Results

Twenty one individual interviews were included in the analysis - six Human Resources (HR) and Occupational Health (OH) professionals and one employment lawyer working with HR professionals, seven employees with obesity, and seven employees of diverse body sizes. Participant characteristics can be seen in Table 6.1.

Table 6.1: *Sample demographics*

Demographic	M (SD)	Range
Average hours a week worked	40.84 (9.01)*	16-60
Category		*N*
Age	25-34	7
	35-44	5
	45-54	4
	55-64	5
Gender	Male	8
	Female	13
Ethnicity	White British	18
	Other White	2
	Indian	1
Sector	Public sector	11
	Private sector	8
	Voluntary, community and not for profit	2**
Education level	A Levels	1
	University graduate	7
	Master's degree	12
	Other	1
Role performed	Management	16
	Non-management	5

*Two participants wrote varied so their hours could not be calculated
**Two participants selected both public and voluntary, community and not for profit

Participants provided their weight and height and their BMI was calculated by the researcher. However, not all participants provided their weight as some participants have decided not to weigh themselves. Participant 15 had previously been 'obese' however they are now classified as 'overweight.' The context in which their experiences were provided were from when they were obese and they were not excluded from the data because research suggests that even those who are not classified as 'overweight' according to their BMI may experience weight stigma (Vartanian & Shaprow, 2008).

NHS guidelines define a BMI of below 18.5 as underweight, 18.5-24.9 as a healthy weight, 25-29.9 as overweight, 30-39.9 as obese, and 40 or above as severely obese. Although a popular measure for defining obesity, this measure has a number of flaws. The primary one is that it does not differentiate between body lean mass and body fat mass (Nuttall, 2015). Table 6.2 shows the participant's BMI and their classification.

Table 6.2: *Participants' BMI*

Participant ID	BMI	Classification
HR/OH		
Participant 1	20.4	Healthy weight
Participant 2	22.2	Healthy weight
Participant 3	26	Overweight
Participant 4	22.3	Healthy weight
Participant 5	34	Obese
Participant 6	21.6	Healthy weight
Participant 7	19.6	Healthy weight
Employees of diverse body sizes		
Participant 8	22.3	Healthy weight
Participant 9	29.3	Overweight
Participant 10	25.4	Overweight
Participant 11	38.2	Obese
Participant 12	23.5	Healthy weight
Participant 13	23.6	Healthy weight
Participant 14	22.1	Healthy weight
Employees with obesity		
Participant 15	27.3	Overweight
Participant 16	60.7	Severely obese
Participant 17	33	Obese
Participant 18	32.1	Obese
Participant 19	Unable to calculate	
Participant 20	44.6	Severely obese
Participant 21	Unable to calculate	

Themes were identified for each of the three research aims and the thematic analysis identified twelve themes. These themes are shown in Table 6.3. Examples from the data are presented in the text that follows to help illustrate each theme.

Table 6.3: *Research aims and themes*

	Research Aims	Themes
1	To understand the experience of obesity stigma in UK workplaces	• Recruitment experiences • Inappropriate comments and name calling by colleagues and clients • Lack of provision of adequate equipment • Exclusion from specific workplace activities
2	To identify the factors that impact on obesity stigma at work	• Assumptions about obesity • Experience of working with employees with obesity • Individual characteristics • Social norms • Organisational norms
3	Offer insights into how obesity stigma at work can be overcome to inform the development of effective evidence-based interventions to address obesity stigma	• Societal • Organisational factors • Fear of fat shaming and causing offence

6.4.1 Aim 1: To understand the experience of obesity stigma in UK workplaces

Recruitment experiences. Stereotypes and assumptions played a central role in the negative recruitment experiences of employees with obesity, as participant 21 described: "*assumptions are made about you know, will you be able to do the long hours during this job for example implying they get that I'm lazy because I'm fat you know…*" Interestingly, negative stereotypes and assumptions may also be held by individuals with obesity. One employee with obesity, participant 17, commented: *"I suppose when you're doing things like job interviews and things and someone comes in who is say very overweight, I probably have got an instinctual reaction that's negative if I'm honest."* This suggests that weight stigma is so embedded that employees with obesity show stigma to other employees with obesity.

Many of the stereotypes and assumptions relate to perceptions of ill health as participant 2 noted: *"My primary association is ill health, so when you say the word obesity I think of all the kind of health problems that tend to come along with it, so diabetes, high cholesterol, high blood pressure, reduced quality of life."* However, another justification for evaluating a potential employee based on their weight is organisational perceptions of impression management. This was illustrated by participant 17 who commented: *"They'd be sitting at the counter dealing with people and people going oh god look at that really fat person you know, that's what they see when they come to the counter rather than there's someone here to help them."* Participant 3 described that in one of their jobs the weight of applicants had been discussed post interview.

A number of participants described their negative recruitment experiences; they described their perceived discrimination which can be very hard to prove has occurred. However, examples of enacted stigma or discrimination were also described. Participant 18 explained: *"I went…to…for a job in a trust that I was absolutely qualified for and I wasn't appointed, and I asked why and somebody told me on the quiet, said it's the occupational health doctor doesn't appoint anybody who is fat."* The participant described how they were advised that the occupational health doctor "*feels that being overweight, is how it was described, is a pathology that they won't have in their workforce."*

Inappropriate comments and name calling by colleagues and clients

Examples of both comments and name calling were provided from employees of diverse sizes, and those with obesity, working across a range of roles. As participant 12, an employee of diverse size, described: *"I've experienced people talking behind their backs when they are not there, about they're overweight and they smell, and this kind of stuff and don't want to work with them."* In comparison, employees with obesity provided incidents of comments to their face, many of which relate to incorrect assumptions that individuals hold about obesity, for example that it is highly controllable and solely within individual responsibility. One employee, participant 20, described her experiences with her head of department: *"She is constantly pushing diets at me, telling me I ought to do certain exercises….it's just constant and I just feel like telling her to f off sometimes."* Employees with obesity also described how colleagues comment on what they are eating and make judgements, while Participant 11 had previously found out that some of her colleagues referred to her as 'the fat controller.' Participant 20 described how abuse from her public sector clients about being fat or obese was more common when she had made an unpopular decision: *"If I said no, the first thing they would pick up on was the fact that I was fat and they would insult me and abuse me because of that which is human nature I know."*

In addition to criticism related to food and exercise, participant 21 described how she was criticised for her clothing based purely on the assumption or belief of what an overweight person 'should' wear. She described the impact: "*I was devastated, I was really, really upset about it because my clothing is my personality, it's you know how I am. And so to criticise that was to really criticise me and I found it very difficult."* Additionally, she commented: "*I have no problem with showing my tummy and you know that's not appropriate for some people, 'how dare I flaunt my belly'."* She stated that it is mainly women that have an issue with her tummy. Examples of employees with obesity using humour to put others at ease or to cover for a difficult topic were also given. Employees with overweight or obesity were described as those who *"play the fool, make people laugh, are self-effacing."*

Interestingly, a number of employees with obesity were clear with regards to terminology, in that they much preferred the word 'fat' to 'obese.' Participant 18 explained how it is a fact that she is 'fat', and the word is a descriptor but that she really does not like being called 'obese.' Participant 19 talked about removing the negative value judgments on

the word ‘fat’ and reclaiming this word as the LGBTQ community have done with the word ‘queer’; she explained how this is now a word of power and she hopes that the same will happen with the word ‘fat.’ She explained how people think it is polite not to describe you as fat but for her she does not have a negative value judgement on fat people: “*I’ve worked on it enough that I’ve challenged all of that in myself so for me fat is just a description.”* Participant 19 also drew parallels between the LGBTQ movement and fat activism, she described how the shift in the social psyche happened when research came out to suggest that genetically people could be born gay or trans so she thinks that a similar thing will have to happen with weight stigma: *“I think the two paths are really really interesting because they’re both human conditions which people used to think were a choice but now are moving towards understanding that actually it’s a part of the diversity of humanity.”*

Lack of provision of adequate equipment

Examples were provided of inadequate equipment and/or uniform being provided to employees with obesity. For example, employees both with obesity and of diverse body size (participant 16 and participant 13) described how individuals who are not able to fit into uniforms have to wear plain coloured clothing. One employee with obesity, participant 16, described how it made them feel singled out and not a part of the team. A couple of participants mentioned that chairs had broken and one employee with obesity explained that their chair had not been fixed nor an appropriate one provided. One employee with obesity, participant 19, discussed their worries about equipment when they go into a training room: *“It’s a fat person’s nightmare because you look at that and you think is that going to take my weight, is that going to snap and I’m going to end up on the floor. So, when fat people go into a room they will always always look around at the seating.”*

Exclusion from specific workplace activities

Employees with obesity also described being left out of specific workplace activities due to their weight; such as not being able to participate in department away days due to a physically active element of the day. Participant 20 described how they overheard their colleagues saying they cannot go to a certain conference as they find it hard to travel. Although they acknowledged this to be accurate, they described how they would rather be given the opportunity to say that to their colleagues first rather than having it assumed and decided for them. One employee of a diverse body size (participant 14) mentioned how they had not invited a colleague to a social event. They did not believe they had consciously

excluded her because of her weight but they acknowledged that the colleague may have perceived her exclusion to be due to her weight: "*I think it was more maybe age as well, there's lots of different factors in it but difficult to hone in. If you were to keep everything neutral, if it was just because she was obese, I'd like to think not but I don't know."*

6.4.2 Aim 2: To identify the factors that impact on obesity stigma in the workplace

Assumptions about obesity

Many of the stigmatising experiences that individuals described appeared to be based on the assumptions that people hold regarding obesity; these are wide ranging and include assumptions about intelligence, stereotypes regarding workplace characteristics and health-related influences including the cause of obesity. Participant 19 explained how her colleague commented that being fat was a choice whilst another employee with obesity (participant 20) commented: *"I just think there's a lot of stigma associated with being obese, there are assumptions made about your class, your background, your education, your capacity. I always feel that I'm underestimated."* Participant 17 described a conversation they had with someone in HR, where they were told "*An overweight person is probably going to be much lazier at work things like that so actually you know ideally you wouldn't hire an overweight person because they're probably quite lazy."* This quote demonstrates the assumption of the HR professional and the stereotype they hold but also suggests that they either did not see the employee with obesity in the same light or they did but weight bias is so socially acceptable they did not notice or mind they were sharing the stereotype in front of them.

Although this research focused on weight stigma experienced by individuals with obesity, one of the employees with obesity noted differences in perceptions of excess weight versus too little weight. Participant 17 explained this contrast, they described how in their office everyone was worried about the person who was underweight whereas when someone was too fat, such as themselves, it was perceived as their own fault: *"I think the other way it's seen as that person has got a problem, whether it's a psychological problem that they need help for but the other way it's seen as commenting on that person's character which is they must be a greedy person or a lazy person."* Additionally, they commented on the language used, for example, the phrases 'they don't care' and 'they've let themselves go'

would often be used in relation to someone with excess weight but no one would ever use this language to describe someone with too little weight.

Experience of working with employees with obesity

The experience individuals have of working with employees with obesity appeared to influence obesity stigma. This experience has the potential to have a huge influence on an individual's affective responses, attitudes held, and behaviour shown. For example an employee with obesity (participant 17) described: *"I employed for example someone who was a very overweight person and they only worked for a month and then went off for like a year's sick because of weight related issues and things and it was like just kind of like ugh God never do that again. Because they'll always have like health problems, you know they were just terrible."* However, the majority of quotes showed that working with individuals with obesity challenged previously held stereotypes. For example, one HR/OH professional (participant 2) described how she thought if an employee with obesity could not be disciplined enough to restrict her food intake then how would she be disciplined enough to work hard. Interestingly she went on to say that this employee completely proved her wrong and challenged her bias as the employee was one of the most hard working and conscientious people: *"She completely exploded my unconscious bias about overweight and obese people in the workplace."* This cognitive dissonance was illustrated by others. Participant 13 for instance described how in the context of new colleagues they have not worked with before, they associated an individuals' size with being lazy, but at the same time that the two nurses with obesity that they worked with were some of the best nurses in their team, "*really knowledgeable, really kind, caring, efficient"* and *"will stay late."*

Individual characteristics

Efforts individuals with obesity made to overcome and change stigma were also discussed. For example, individuals with obesity referred to their hard-working ethic, almost as if this being conscientious or 'going the extra mile' was a characteristic they had to develop to help them mitigate obesity stigma. As Participant 20 explained: "*I think there's a natural assumption that you're fat and lazy and useless and I have to say I probably work more hours as a result."*

Employees with obesity also described how they are judged on their appearance and therefore need to make an additional effort. This was supported by participant 8, an

employee of diverse body size: *"I happen to employ three people who are obese but they are smart, clean, well-groomed and I wondered to myself whether that's why I just don't see their obesity as a thing….A scruffy thin person would not, well I have not recruited scruffy thin people and I have recruited elegant obese people."*

Social norms

Social norms regarding obesity were demonstrated in a range of ways, for example individuals discussed stereotypes and assumptions relating to health and noted the current focus on health in society. Participant 1 commented how people now understand more about health including the benefits, that it's currently more fashionable to be fitter and talked about some of the health research that has recently been in the media. Participants also acknowledged that obesity stigma is one of the few that is still socially acceptable as Participant 2 explains: "*It's almost like the last thing people can hang onto that they can be prejudiced about and no one is going to call them out for it."*

There was also an acknowledgment that in current society there can be too much of an emphasis on appearance and being thin rather than being healthy. Comments suggested that this ideal has been endorsed particularly through the media and social media for a number of years. Participant 4 commented that not all cultures place the same value on exercise, health and wellbeing; other comments reinforced the importance of cultural differences citing, for example, that in some cultures being overweight is positively associated with wealth. There are also difficulties associated with challenging social norms, particularly those that relate to weight, participant 21 stated that she has a lot of friends who are overweight who are pole dancers and run marathons but that people cannot understand how a fat person can be healthy: *"It's always perceived to be as negative, that's all anyone will ever see it as and if you are proud about your weight or your acceptance of your weight then you are wrong."*

Organisational norms

Finally, organisational factors played a role. These could be both positive or negative. For example, one employee with obesity talked about her gratitude as she recognised that with the reasonable adjustments her manager gives her e.g. home working, she is able to fully participate in her paid job and her voluntary work. Others talked about the negative impact of wellbeing initiatives at work and how these might impact stigma. For example, participant 19 highlighted the importance of attitudes: *"You know all of these little things that seem quite*

innocuous and are there to encourage people to be fitter can actually be quite detrimental. It's not the activity, it's the attitude that goes with it that's the danger." Similarly, participant 21 commented: *"Not to constantly have you know dry January or couch to 500 in the workplace and shaming people who don't take part in such activities, would be really important so I think it is around awareness, it is around acceptance."*

One of the initiatives that has been implemented in some organisations is walking meetings. The negative side of walking meetings and how these could be detrimental to a person with obesity was described by participant 19 who explained that it might be hard for the employee to engage in the meeting because of the likelihood of becoming breathless, which then draws attention to them being fat and unfit. Positive benefits of some wellbeing initiatives were noted by some employees; for example, walking groups improving staff relations. It was suggested that the organsational culture will also impact on the attitudes that are shown. For example, participant 19 talked about the hierarchical nature of the NHS. She described how if you are a junior member of staff and anti-fat attitudes are modelled by other health professionals you will be likely to go along with that. Participant 6 noted how the perception of obesity stigma will depend on who witnesses it: *"Well if it was seen by somebody else who actually cared so HR or someone like that."*

Organisational factors such as the sector and the physical requirements of the role may also play a role. One employee with obesity who interviewed for a customer facing role a number of years ago was told that because they were going to be 'front of house' they would need to lose weight. This example related to aesthetics but sometimes employees need to weigh a certain amount due to the safety requirements of the role. Participant 4 explained how in their company there are certain roles that have BMI restrictions due to the nature of the role. Participant 7 described how obesity has the potential to impact on clinical staff in terms of getting close to beds or patients.

6.4.3 Aim 3: Offer insights into how obesity stigma at work can be overcome to inform the development of effective evidence-based interventions to address obesity stigma

Societal factors

At the societal level, two key suggestions for how obesity stigma at work can be overcome were: changes in legislation and improving education. In the interviews the importance of legislation in affecting change in attitudes was recognised. Participant 15 hoped that legislation exists to address outright discrimination. They suggested that if it does not, it needs to be investigated and if it does, it should be better publicised. However, some employees felt slightly reluctant about the idea of legislative change. For example, participant 8 described how they do not see employees with obesity as a separate group and they do not think their colleagues with obesity would want to be viewed in this way.

Greater education around obesity was also suggested. One employee with obesity commented that one way of achieving this is through the power of academic research; they explained that in an educational context providing a scientific basis has much more impact than just describing individual experience. Participant 7 described how there needs to be a better understanding of why obesity happens and how it occurs: "*we all have some responsibility for it in terms of the way in which we lead our lives, so you know the food industry, lack of exercise, the way we design buildings."* She stated that the ideal way of talking about obesity would be in a way that is not seen as fat shaming or blaming. In addition, it was suggested that improving awareness around the unconscious nature of bias might also help, for example participant 19 commented: *"People don't like to think they are stigmatising other people, they don't like to be party to that and if they start to learn how covertly they do it and how unconsciously they do it I think that's really really helpful."*

Organisational factors

Cultural change was a dominant theme and it was suggested this could be achieved through putting in place relevant policies and processes, providing adequate equipment, providing training to improve education and having visible role models. Ultimately it was thought that these changes together would lead to an inclusive, anti-bullying culture with

awareness and acceptance with confident leaders who could address diversity and inclusion in any shape or form.

Regarding the provision of appropriate equipment, one HR/OH professional, participant 4 described their inclusive approach: their organisation has a physio team who conduct their DSE assessments and they have a special company who try to get in the necessary equipment for anyone who requires it. One of the employees with obesity, participant 19, discussed what equipment considerations they would take into account: *"If I was setting up the ideal training room I wouldn't have those silly seats with the desks that come across, I wouldn't have seats with arms and I also wouldn't expect people to be writing on their laps because a lot of fat people don't have laps. Sitting at tables is you know is better."*

Many suggested raising awareness about the complexity of obesity and trying to get rid of the myths that surround obesity through educational training interventions. Participants also talked about acknowledging individual differences and increasing awareness about the impact of fat/body shaming and the impact of 'fat talk' – negative comments about appearance that reinforce the thin ideal (Nichter & Vuckovic, 1994) – as people may not be aware that they are contributing to weight bias in this way. A number of participants also mentioned unconscious bias training in the workplace as a way to manage this. Participant 18 noted that unconscious bias training generally focuses on different ethnicities or disabilities, and suggested that weight, and other differences in appearance, (e.g. alopecia), could be usefully added to the list of biases addressed.

Another idea for overcoming stigma was using storytelling as it helps to humanise people and has been used successfully in other organisations as part of a communications campaign to address other types of discrimination. Examining parallels with other types of discrimination, one way of helping to overcome mental health stigma has been to have individuals with mental ill health discuss their experiences as part of training. For example, participant 17 explained that on a training course a member of staff who suffered with depression spoke to other employees about their experience and how it affected them. They stated that the employees on the course found it very *'helpful, enlightening and useful.'* There were suggestions that this could be an element of obesity stigma training. However, there were some concerns raised about the effectiveness of this type of training in relation to

obesity stigma which although it has similarities to mental health stigma is very different in its visibility: "*When you walk into that room and there's a session on mental health no one knows if anyone else has an issue or not, well if you did a session on weight well everyone is immediately looking around the room and throwing people in the kind of you know in the line of small to large.*" There was also recognition of the limitations of training. Participant 1 an HR/OH professional stated that organisations need both policies and training. However, they stated that the impact of training is limited as it is real-life experience that drives behavioural change. Similarly, the importance of positive role models, particularly those in senior management positions and especially women, was also recognised as without seeing representation it can be hard to enact change. Participant 21 commented: *"unfortunately there's a lot of overweight business men that doesn't help us."*

Fear of fat shaming and causing offence

Amongst the suggestions for how to overcome obesity stigma at work there were also discussions around the fear of fat shaming and how best to address this when designing and communicating interventions about obesity and weight stigma. This theme suggests there needs to be a lot of sensitivity when designing such interventions and when sending out communications about such interventions. Additionally, a very considered approach needs to be taken when deciding who runs the sessions. Some employees of diverse body sizes discussed how they would feel uncomfortable running training because it would feel like they were 'labelling' and 'highlighting' overweight people. Participant 7, an HR/OH professional said: *"You know if you've got…doing training around unconscious bias and if you mention obesity as part of that and you're the skinny person in the room then that…it's just a complete minefield really."* Similarly, one of the employees with obesity, participant 17, stated they would be looking at the presenter and how heavy they were thinking can you really talk about these kinds of issues and questioning their credibility in speaking about this subject. Participant 17 also described how if they had to attend such a session, they would find it embarrassing; they would feel that everyone was staring and thinking it was about them.

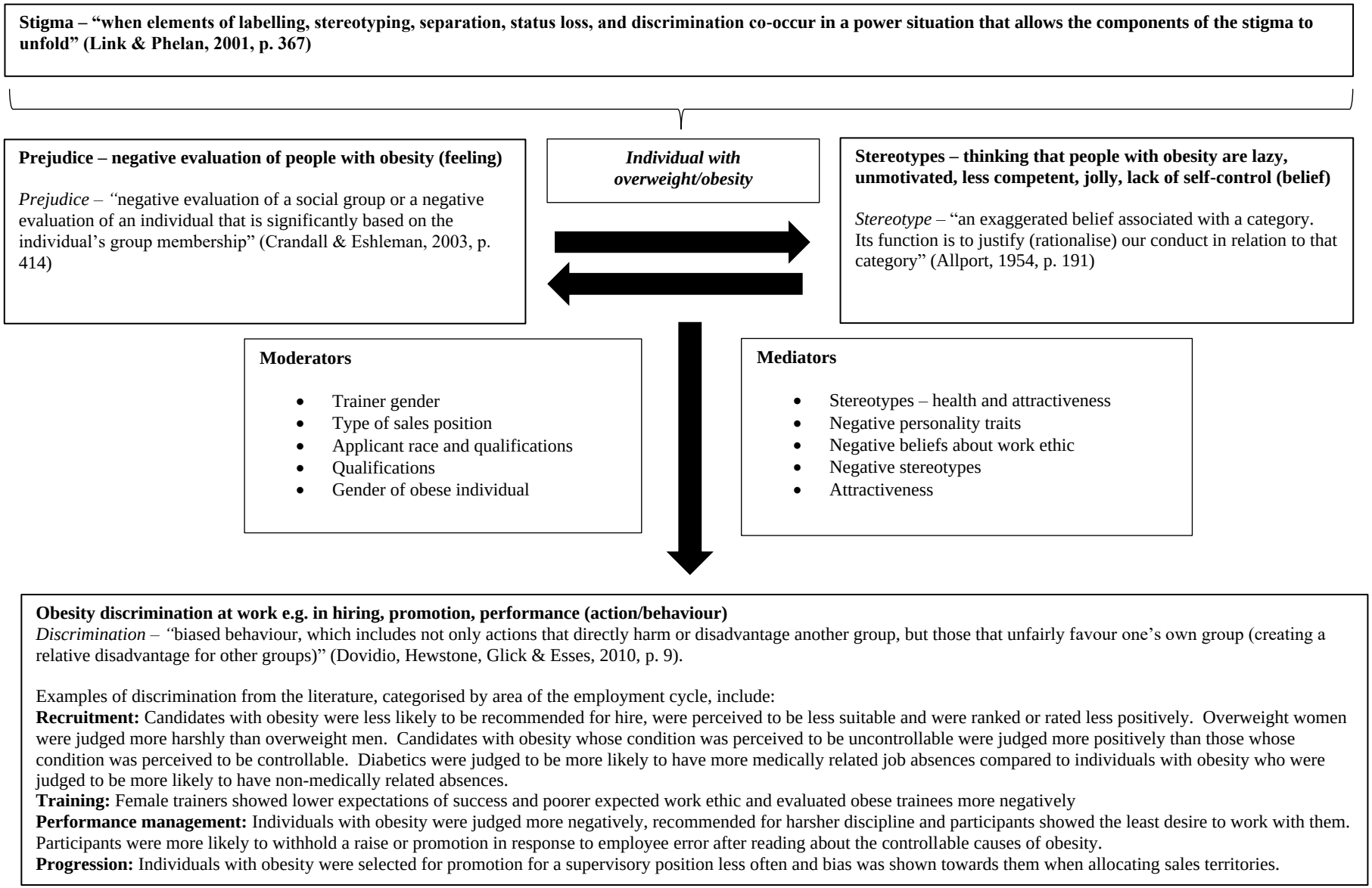

Figure 6.1: Model of obesity stigma in the workplace

6.4.4 Results in the context of the model of obesity stigma in the workplace

In addition to the results regarding the three main aims of the study, the data has also been analysed using the model developed from the systematic literature review in chapter 4. For this section of the results chapter, the model of obesity stigma in the workplace (see Figure 6.1) is used as a framework and the interview data has been mapped against this framework.

As the model shows stigma consists of prejudice (emotional bias), stereotypes (mental bias) and discrimination (behavioural bias) (Fiske, 2020). The model also shows that in the systematic review, a number of moderators and mediators were identified. Specific examples drawn from the interviews will be used to illustrate the model.

Prejudice

A few of the participants explained this 'feeling' element of stigma which is the negative evaluation of people with obesity. One participant with obesity, participant 17 stated *"I suppose when you are doing things like job interviews and things and someone comes in who is say very overweight, I probably have got an instinctual reaction that is negative if I am honest."* This was of interest as this was an employee with obesity who stated this suggesting that this 'feeling' might be universal rather than just specific to those of a lower weight, however it may also reflect internalised weight bias. Participant 17 also highlighted these prejudices "*there is sort of ingrained prejudices I think even though I would consider myself an overweight person anyway."* Participant 8 spoke about how individuals might not 'see' obesity if they know someone and get on with them and they are pleasant to be around however they suggested that if an individual does not know someone personally then they might 'see' their obesity.

Stereotypes

Participants referenced a number of common stereotypes associated with obesity. Examples of these included stereotypes that relate to intelligence, laziness and productivity. Some of these stereotypes stem from perceptions that the controllability of obesity is very high (Finkelstein et al., 2007) and this was reflected by an HR/OH professional, participant 7 who said *"we do all make judgments about people who are overweight in terms of it being around their inability to control themselves."* This perception was also illustrated by an

employee with obesity, participant 20 who described how her boss is always pushing diets at her and telling her to do certain exercises, thereby implying that the obesity is within her control and that she can change it by making different lifestyle choices. Another employee with obesity, participant 17, provided an example of when someone in HR told them that an overweight person is going to be much lazier at work so ideally you would not hire an overweight person because they are probably quite lazy. Similarly, participant 13, explained her own stereotypes *"it is really bad but if someone comes in and I have never worked with them before and they are very large I will associate that with they could be possibly lazy which is bad"*. Examples of perceptions of employees with obesity being less competent were also provided. Participant 14 stated *"I mean there are definitely assumptions made about people who are erring on the larger side, about you know their productivity, what they can actually produce, what kind of lives do they lead to have this overweight issues of theirs"* which reflects assumptions about an obese individual's ability to do their work in addition to their lifestyle choices. One employee with obesity, participant 20, summarised it in the following quote: *"I just think there is a lot of stigma associated with being obese, there are assumptions made about your class, your background, your education, your capacity"* she also explained that because of these assumptions about her being fat, lazy and useless she thinks that as a result she probably works more hours. This employee went on to say *"in a way my occupation gives me a sense of self-esteem that even…even as an obese person I can still be high achieving and make a difference."*

Discrimination

In the interviews a number of examples of discrimination at work were provided. Categorising these examples using the employment cycle would mean that the majority would be categorised as occurring within the recruitment stage or within general employment discrimination. For example, one employee with obesity, participant 18, provided an example of when they had not been appointed for a role and were told it was because the *"occupational health doctor does not appoint anybody who is fat."* Another employee with obesity, participant 19, provided an example of when they went for an interview and were offered the job as a cashier but were told they would need to "*make a commitment to lose weight"* because they were the face of the company. Similarly, another participant who was an HR/OH professional, participant 3, said that in one of their previous jobs the weight of a candidate was discussed after the interview because *"the role did require quite a bit of exercise, but it was also about the face of the company and they would be the first thing a*

patient would see." However, they did state that the candidate was not unsuccessful because they were overweight. Another employee with obesity, participant 21, also explained that "*assumptions are made about you know, will you be able to do the long hours during this job for example implying they get that I am lazy because I am fat you know."*

Examples of other types of discrimination were provided, for example, not providing sufficient equipment. A few of the employees with obesity described their experiences of not being given appropriate uniform, participant 19 described the impact of their previous employer's size range not being very extensive, *"I had to squeeze into a size 18 (I was a 20 at the time) and so my uniform was always really tight, exaggerating my size and uncomfortable to work in – especially when working in the stock room."* Another employee with obesity, participant 16, spoke about how they have to wear an unbranded t-shirt due to their size and how this makes them feel as a result, *"I feel like I'm singled out because I just have to wear a plain red t-shirt where everyone else has got branded clothing."* Participant 16 also described how their chair at work broke and they were not given a new one, however, positively one of the HR/OH professionals, participant 4, described a similar situation in their organisation, which was handled sensitively, and the chair was replaced. Another employee with obesity, participant 19, explained how going into a training or meeting room can be an anxious experience because of deciding which chair is the safest, they explained *"Are there going to be seats with arms, that is not great, I am not going to fit into that, I am going to squeeze into that, so for instance if I was setting up the ideal training room I would not have those silly seats with the desks that come across, I would not have seats with arms and I also would not expect people to be writing on their laps because a lot of fat people do not have laps."*

Moderators

The model of obesity stigma in the workplace shows a number of moderators that have been identified in the research. Examples include trainer gender, type of sales position, applicant race, qualifications and the gender of the individual with obesity. Quotes to illustrate some of these moderators were provided in the interviews in study 3.

Type of sales position

Bellizzi and Hasty (1998) found that individuals with obesity were viewed as more fit for the challenging sales territory if they were doing telephone sales rather than face to face sales. Although the examples provided in study 3 were not specific to sales, participants discussed how the type of job and interaction with customers might impact on their perceptions of the suitability of the candidate, for example participant 17, an employee with obesity, said *"they would be sitting at the counter dealing with people and people going oh god look at that really fat person you know, that is what they see when they come to the counter rather than there is someone here to help them."* Participant 3, an HR/OH professional, spoke about how an interview candidate was going to be the face of the company and would be the first thing that a patient would see so weight was considered as a factor when discussing the candidate. An employee with obesity, participant 19, also provided an example of when they went for an interview and were told they were successful but because they were going to be front of house, they would need to lose weight. There was also an example provided by an HR/OH professional of the impact of weight on ability to do the job, "*I think certainly for an organisation like us, an NHS trust, where the work can be quite physically demanding I think obesity has an impact on that in terms of being able to cope with the physical demands of the job."* Participant 4 also explained how in their organisation due to the safety related aspects or functionality to do the job there are certain job roles with BMI restrictions. They explained how if, given the requirements of the job, an employee did have a higher BMI than is safe, the employee would be given the opportunity to lose weight and the situation would be reviewed.

Gender of obese individual

Another moderator that was highlighted in the model was the gender of the individual with obesity as research has found that overweight women may be judged more harshly than overweight men (Pingitore et al., 1994) and females with obesity have been perceived as less suitable than males with obesity (Flint et al., 2016). In study 3 examples were provided of gender differences with regards to obesity, participant 10 stated, "*I am not sure that the same stereotypes are attached to a male. You know if it is a beer belly, it is you know oh he is a bit of a lad. Whereas for you know female teachers I think there is this feeling that they are somehow out of control. Or lazy but it is not overt, it is not explicit it is just sort of things that I would say you infer."* Interestingly, a couple of male participants commented that it is more acceptable to talk about weight amongst men and tease each other if someone has put weight

on because they are not exercising, for example participant 14, "*amongst overweight men it seems to be far more of an acceptable thing to talk about and to tease in the workplace. But I have never heard anyone tease women face to face but men absolutely fine in the workplace."* No examples were provided that specifically demonstrated females with obesity being perceived as less suitable than males with obesity. However, there was a comment about the importance of having role models, particularly females within organisations, participant 21, an employee with obesity, commented *"unfortunately there are a lot of overweight businessmen that does not help us."* In the context of role models, one of the HR/OH professionals, participant 1, commented that *"if I think about senior leadership within the organisation I cannot think of anybody who is overweight"* and she highlighted that *"until you see representation then it is very difficult to enact change."*

Within the interviews there were no specific examples given that related to training and applicant race and qualifications were not discussed.

Mediators

The model of obesity stigma in the workplace shows that the systematic literature review identified a variety of mediators: stereotypes (in particular health and attractiveness), negative stereotypes, negative personality traits, negative beliefs about work ethic and attractiveness. Quotes to illustrate some of these mediators were provided in the interviews in study 3.

Health and attractiveness stereotypes

Krueger et al. (2014) found that the stereotypes health and attractiveness mediated the relationship between weight and suitability and hiring recommendations. In the interviews, participants discussed the association between health and obesity. For example, participant 17, explained the association they held based on their previous experience, *"I employed for example someone who was a very overweight person and they only worked for a month and then went off for like a year's sick because of weight related issues and things and it was like just kind of like ugh God never do that again. Because they will always have like health problems, you know they were just terrible."* This was particularly interesting as this was an employee with obesity who made this comment. There were a few comments that associated obesity and absenteeism, for example one HR/OH professional, participant 7, discussed this association from a personal perspective, "*I am aware of the research as well that says there is*

a higher risk of absenteeism. I can see why that would be the case. My sister is very obese interestingly and she experiences quite a lot of health problems which she does not see as related, but they are and has time off work, so I would say you know I can see personally that obesity does have an impact on people's absenteeism from work. But yeah, it is difficult to prove." Another participant also made a comment related to health and the common perception that being obese is unhealthy, participant 2, compared the stigma of obesity to other stigmas which are not unhealthy, "*I suppose also and there is the really tricky thing is that it is not healthy to be obese so you know it is not unhealthy to be transgender or to be black or to be a woman or to like wear lipstick if you are a man whereas it actually is unhealthy to be obese so then that is a really difficult kind of line to tread isn't it."*

Although these comments were not specific to attractiveness, there were a few comments that related to appearance. For example, one employee with obesity, participant 16, explained how "*you are always judged on your appearance so I always dress smart I come with all my relevant qualifications and I can do what I can do but if there is a slim man that is going to walk in behind me I would probably put good money on it that he is going to get the job over the basis of oh is he lazy is he able to do the job do you know what I mean?"* Another employee, participant 8, spoke about appearance and weight and their experiences of different employees, *"I happen to employ three people who are obese but they are smart, clean, well-groomed and I wondered to myself whether that is why I just do not see their obesity as a thing….A scruffy thin person would not, well I have not recruited scruffy thin people and I have recruited elegant obese people."* There was also a recognition by at least one of the participants that people are now much more aesthetically aware. These comments about appearance suggest that individuals with obesity may be able to mitigate some of the stigma by displaying a certain appearance (i.e. clean and smart).

Negative stereotypes and personality traits

Ruggs et al. (2015) found that discrimination was mediated by negative stereotypes; for heavy employees there was greater endorsement of negative stereotypes and subsequently more negative evaluations of the employee, the organisation and products. In the interviews a number of negative stereotypes were discussed which included the common stereotypes that relate to laziness and intelligence. Participant 8 talked about the link between intelligence and overweight, whilst also clearly recognising weight and intelligence are not related, "*I do feel really bad saying it because I know it is not correct but people who are really overweight, on*

first sight you question their intelligence because it is not intelligent to be, for all reasons…you are pre diabetic or possibly diabetic, it is not intelligent for your health but that is because I am in a health setting. I mean there are psychiatrists at the local hospital who are huge, and you know it is clearly not an intelligence thing." Participants also discussed the 'lazy' stereotype and the assumptions about the perceived controllability of obesity; for example, participant 6 said "*I think there is always going to be a stigma around it because it is associated with laziness and people not getting off their bottoms and exercising."* Participant 7 commented that the judgements everyone makes (consciously or unconsciously) about people who are overweight relate to their *"inability to control themselves or they are greedy."* A couple of participants also spoke about positive stereotypes (e.g. humour).

Negative beliefs about work ethic

Powroznik (2017) found that negative beliefs about work ethic mediated the relationship between the presence of a workplace health promotion programme and worse hiring outcomes. Supporting this, a number of participants mentioned negative beliefs about work ethic, either their own or how they feel they are perceived by others. The perception that people with obesity are lazy was illustrated in a number of examples, for example, one HR/OH professional shared their initial judgements in relation to a new person on their team who was obese, participant 2 said "*I thought well if she cannot be disciplined enough to, you know, restrict her food intake then how is she going to be disciplined enough to work hard, which was a dreadful thing to think, and she completely proved me wrong because she was one of the most hard working and conscientious people who has ever worked for me."* Individuals with obesity also commented on this negative belief about work ethic in relation to being lazy, for example participant 15 talked about "*the automatic assumption of fat being negative, fat being lazy"* and the effects of these assumptions whether or not people are aware of these biases. Participant 14 also commented on the idea that individuals who are more active are more productive and more successful whilst recognising that they have no idea whether it is true or not. Similarly, participant 1 said "*there is a potentially, an indirect reflection on how well somebody looks after themselves and therefore potentially how well they might look after a piece of work that you are giving them and their productivity"* although they did recognise that this is a bias and there are a number of reasons why somebody might be of a higher body weight.

6.5 Discussion

This study aimed to provide insight into obesity stigma experienced in the UK workplace, the factors that impact on it, and to explore how obesity stigma at work could be addressed. This research contributes a unique perspective as interview data from a range of employees and stakeholders were examined together rather than at the group level, drawing together a range of individuals who have both experienced, seen and demonstrated obesity stigma to offer a more holistic view of obesity stigma. The data was also analysed using the model of obesity stigma in the workplace developed from the systematic literature review in chapter 4; the model was used as a framework and examples drawn from the interviews were used to illustrate the model. The interviews, drawing from different perspectives, elicited themes that are in line with the model suggesting that the coverage of research identified in the SLR is broad in scope and gives confidence that the key mechanisms and outcomes of obesity stigma are included in the model. It therefore enables us to move on to test the model, and develop interventions based on this framework, without concern that we have missed key contributing factors. Similar to the findings identified in the literature review the 'feeling' element of stigma was mentioned less frequently by the participants and most of the discrimination examples were provided from the recruitment stage of the employment cycle. The themes were identified by different groups which suggests a homogenous experience of obesity stigma; this is promising for obesity stigma interventions as it suggests that the different target groups have a shared sense of understanding. Using examples from the interviews to illustrate the model reveals the numerous factors that influence the experience of obesity stigma and the complexity of obesity stigma.

6.5.1 Experiences of obesity stigma in UK workplaces

A diverse range of experiences of obesity stigma were described by participants. In line with much of the experimental research in this field (e.g. Flint et al., 2016), examples of weight bias experienced at the recruitment stage were described. However, in this study examples of perceived weight stigma and enacted weight stigma were identified both in the recruitment process and once individuals were within an organisation. The impact of subtle discrimination should not be underestimated; research has shown that the negative impact of subtle discrimination on psychological, physical health and work-related outcomes is similar to that of overt discrimination (Jones et al., 2016). Furthermore, this study is the first, to our knowledge, to explore, through the first-person narrative of a range of employees, the stigmatising experiences employees with obesity encounter once they are within an

organisation: the reported direct experiences and overheard inappropriate comments and name calling, lack of provision of adequate equipment, and exclusion from specific workplace activities suggest that there are a range of ways in which obesity stigma is experienced in UK workplaces.

6.5.2 Factors that impact on obesity stigma in the workplace

Five overarching factors were found to impact on obesity stigma in the workplace: assumptions about obesity, social norms, experiences of working with employees with obesity, individual characteristics and organisational norms.

First, experiences described by participants suggest that stigma is often based on incorrect assumptions about obesity, around for instance the causes of obesity, therefore, providing support for attribution theory (Weiner, 1985).These findings are in line with research suggesting that individuals are more likely to display negative attitudes towards individuals with obesity when they internally attribute causes of weight and believe weight can be controlled through willpower, diet and exercise (Crandall, 1994).

Second, social norms and values such as healthism are likely to contribute to weight stigma due to the strong focus on individual behaviour and the belief that obesity can be controlled by diet and exercise (Crandall, 1994). Those who are perceived not to live in accordance with the healthy lifestyle social norm are often stigmatised, e.g. individuals with obesity, smokers and heavy drinkers (Fitzgerald, 1994). The findings support previous research (Ruggs et al., 2015), suggesting that people hold a number of negative stereotypes regarding obesity, (e.g. stereotypes that relate to workplace characteristics, such as laziness). Social norms are often influenced and reflected in the media. For example, the belief that obesity can be controlled through willpower, diet and exercise (Crandall, 1994) is one that is promoted through the media (Puhl & Heuer, 2010). Another social norm is the moralisation of fatness; van Amsterdam and van Eck state that it is viewed as:

> Moral deficit that implies individuals' doing (having a healthy lifestyle or not) instead of an ontological deficit (possessing something different for which the bearer is not individually responsible). This distinction indicates how 'fatness' differs from other markers of difference such as gender and race; it carries a charge of explicit moral blame (2019, p. 2).

It is proposed that this partly explains why individuals believe it is acceptable to comment on food intake because eating in a certain way is linked with 'bad behaviours'. Moralisation is a key part of healthism and it has been proposed that the educational approach to health promotion where individuals are empowered to make lifestyle change may contribute to this moralisation (Brown, 2018). Supporting this, research has found that the moralisation of obesity was a predictor of weight stigma (Ringel & Ditto, 2019).

Third, previous experience of working with a colleague with obesity can impact both positively and negatively on obesity stigma. Work by Flint, Hudson and Lavallee (2013) suggested that anti-fat attitudes may be hard to change. However, this study provides examples of exposure being enough to create attitudinal change. The difference may lie in the fact that this was a field study which explored and included personal relationships; whereas previous research had explored this experimentally – and therefore hypothetically. Further research is required to understand the mechanism by which a change in anti-fat attitudes occurs, which will be key to developing effective interventions.

Fourth, building on the work of van Amsterdam and van Eck (2019), this study highlights the importance of individual characteristics and provides evidence that some employees overcompensate for the stigma using compliant or uncompliant behaviours. For example, individuals described how they work extra-hard to overcome the 'lazy' stereotype and make additional effort with their appearance. These compliant examples (i.e. trying to increase 'positive' characteristics) were in contrast to non-compliant compensation examples where individuals with obesity 'flaunt' their body; interestingly non-compliant examples were only provided by female participants. In their paper, van Amsterdam and van Eck (2019) highlight that these compensations that individuals make can be interpreted both as a way of countering the stereotype or as a way of conforming to this idea that their 'fat' body results in them being a 'failed' employee.

Finally, organisational norms were identified as impacting on obesity stigma, often being exacerbated by workplace wellbeing initiatives. Workplace wellbeing initiatives are often lauded as a great way to increase wellbeing (Hutchinson & Wilson, 2012). However, it is proposed that because workplace health promotions place a huge value on individual level behaviour, as seen in the concept of healthism, they may negatively contribute to obesity stigma. Experimental research in this area found that overweight and obese employees were

rated more negatively and experienced hiring discrimination in organisations with health promotion programmes (Powroznik, 2017). More recently, Tauber et al. (2018) examined workplace health promotion programmes that emphasised either individual or organisational responsibility. They identified that programmes emphasising individual responsibility impacted on hiring decisions (increasing weight-based discrimination) and encouraged employees with obesity to perceive weight as less controllable. Interestingly, these programmes were also associated with all employees feeling more responsible for their health. In line with previous research, employees with obesity in this study discussed some negative consequences of wellbeing programmes. There were concerns around the attitudes attached to some of these activities and there were suggestions that some individuals are shamed when they do not participate in such initiatives. This is an important finding as organisations need to be aware of how to negate these potentially negative impacts when implementing such programmes and, to date, research examining the potential negative impact of wellbeing initiatives is lacking.

6.5.3 Offering insights into how obesity stigma at work can be overcome to inform the development of effective evidence-based interventions to address obesity stigma

Interventions examining how to reduce weight bias have focused on the healthcare sector and specifically the relationship between health professionals and patients (e.g. Swift, Tischler et al., 2013). This is because research has identified anti-fat attitudes in healthcare professionals (e.g. Teachman & Brownell, 2001), in addition to identifying the negative impact this may have on the quality of care provided (e.g. Phelan et al., 2015). This study sought to gather recommendations for interventions to overcome obesity stigma at work from a range of employees. In this study, a number of societal and organisational interventions were identified as ways to overcome obesity stigma in the workplace. Supporting this, Alberga, Russell-Mayhew, von Ranson and McLaren (2016) proposed that a population-level approach is required to address weight stigma so that all individuals irrespective of their size can be treated respectfully.

At the societal level, legislation may be a promising avenue; there has been some preliminary research exploring public support for such policies and legislation, in countries such as the US, Canada, Australia and Iceland, which suggests that this would be welcome (Puhl et al., 2015). However, further research is required to better understand the potential

impact as legislation does not always have the desired attitudinal impact. For example, while research examining same sex partnership legislation suggests it is linked with a decrease in negative attitudes (Takacs & Szalma, 2011), Redman (2018) found that legislation recognising same sex couples reinforced the attitudes of individuals who already supported homosexuality, but had little to no effect on those who were unsupportive. That said, the benefits accrued by individuals may warrant the legislative intervention. In their preliminary investigation, Pearl, Puhl and Dovidio (2017) found that knowing there is legislation to stop weight discrimination is associated with decreased internalisation amongst individuals who have experienced weight bias. This may bring significant benefits to the individual as research has demonstrated that weight bias internalisation, (i.e. when individuals apply negative weight stereotypes to themselves), is associated with negative mental health outcomes and a decreased likelihood of maintaining weight loss (Pearl & Puhl, 2018; Puhl et al., 2017).

Training to increase awareness of obesity stigma was also proposed. However, who delivers the training and how the content is presented would need careful consideration. A common theme amongst participants was a fear of fat shaming and causing offence. In this study examples were provided by employees with obesity that some people believe that by accepting obesity one is condoning obesity; other participants were worried that by running training around obesity stigma they would cause offence. Providing employees with knowledge of the causes of obesity, raising awareness of weight stigma, for example, 'fat talk' (Nichter & Vuckovic, 1994), in addition to providing guidance as to how best to provide support could help address obesity stigma at work. Unsurprisingly, no participants reported that obesity stigma training had been implemented in their organisations. However, recently there has been an increase in workplace interventions to address the stigma of mental ill health. A recent systematic review suggests that these interventions may be more successful at changing knowledge and behaviour rather than attitudes (Hanisch et al., 2016). Research also suggests that although unconscious bias training is very popular there are some doubts regarding its efficacy and it is proposed that a perspective-taking approach may be more effective (Chartered Institute of Personnel and Development, 2019).

6.5.4 The model of obesity stigma in the workplace

A variety of examples were provided by participants which helped to illustrate the model using real life examples.

Examining, the examples of prejudice, stereotypes and discrimination. The stereotypes and discrimination that participants described, support a lot of the existing literature. For example, the lazy and lacking in self-discipline stereotype (Klassen, Jasper & Harris, 1993) and the high perceived controllability of obesity (Crandall et al., 2001). Regarding discrimination, many of the discrimination examples that were provided were in the context of the recruitment stage of the employment cycle which is in line with much of the experimental research (e.g. Flint et al., 2016). The prejudice element was discussed less often which is also reflective of the literature in this field. However, the negative reactions and feelings that a few of the participants mentioned may relate to disgust. There is increasing evidence for the pathogen avoidance mechanisms in the context of obesity stigma (Park, Schaller & Crandall, 2007) and research supports the role of disgust in obesity stigma.

Evidence to illustrate the model was provided for the moderators - type of sales position and the gender of the individual with obesity – however there were no examples given that related to training and applicant race and qualifications. Although the findings were not specific to sales positions, the interviews are in line with research which suggests that type of job will impact on obesity stigma. For example, Bellizzi and Hasty (1998) found that individuals with obesity were viewed as more fit for the challenging sales territory if they were doing telephone sales rather than face to face sales. Research has also shown that individuals with obesity were less likely to be selected by participants for higher activity jobs (Popovich et al., 1997).

In the interviews there were no specific examples given where overweight men were judged more harshly than overweight women. However, participants did mention differences in stereotypes between higher weight men and women and that it is more acceptable to talk and tease men about weight. Yet the research suggests that overweight women may be judged more harshly than overweight men (Pingitore et al., 1994) and that women are more likely to experience obesity stigma than men (Fikkan & Rothblum, 2012; Roehling et al., 2007). However, Himmelstein, Puhl and Quinn (2018) found results to suggest that this may not be the case and proposed that this may be because weight stigma is experienced at different weight categories. Research suggests that for men the weight stigma relationship is U-shaped whereas for women this relationship is linear. No specific examples in the interviews were given that related to applicant race and qualifications. However, this is of interest because different social categories (e.g. race and gender) can interact which can result in certain

advantages or disadvantages and limited research into this intersectionality in the context of weight stigma has been conducted (Makowski et al., 2019). Puhl, Luedicke and Heuer (2013) found that there were differences in race but not gender, with African American females with obesity being rated higher on dislike and social distance than Caucasian females with obesity.

Evidence to illustrate the model was provided for the mediators – health and attractiveness stereotypes, negative stereotypes and personality traits and negative beliefs about work ethic. Participants associated obesity with many negative health outcomes. This is in line with some research that has found associations between obesity and absenteeism and presenteeism (Bustillos, Vargas & Gomero-Cuadra, 2015). Although interestingly, Klesges et al. (1990) found that diabetics were judged to be more likely to have medically related job absences than individuals with obesity. In this study, participants did not talk about attractiveness but rather appearance. This is in line with research by van Amsterdam and van Eck (2019) which shows that employees overcompensate for stigma using compliant or uncompliant behaviours.

A number of examples were also provided that related to negative stereotypes, personality traits and negative beliefs about work ethic. In addition to discussions about these negative associations, there were a few employees who spoke about positive stereotypes such as humour. This supports research which has demonstrated that the effect of negative stereotypes may be decreased by certain unambiguous cues and a positive stereotype (e.g. joviality) (Cowart & Brady, 2014). This is in line with the "jolly fat hypothesis" (Crisp & McGuinness, 1976; Palinkas, Wingard & Barrett-Connor, 1996), which proposes that men with obesity display less depressive symptoms and the portrayal of certain obese characters who are known for being 'jolly' such as Father Christmas (Cowart & Brady, 2014).

The model of obesity stigma in the workplace was developed as a result of the systematic literature review in study 1. Using the model as a framework and mapping the interview data from study 3 against the framework enables real life illustrations of the model. Although it was not possible to provide examples of every element of the model this analysis helps to demonstrate the usefulness of this model in a real-world context.

6.5.5 Limitations

No study is without limitations. First, perceptions of obesity stigma by all participants were self-reported and are therefore subject to recall biases (Althubaiti, 2016). However, this self-report approach enabled us to explore in-depth experiences of obesity stigma that could not otherwise be captured. Second, while this study is one of a few studies that has qualitatively examined this topic from the perspective of such a range of employees and enables a more holistic picture of obesity stigma to be gathered, analysing the data set at the group level limits the ability to examine between group differences. Importantly however, individuals with obesity who have often been excluded from participation (e.g. Puhl, Himmselstein, Gorin, & Suh, 2017; Puhl, Moss-Racusin, Schwartz & Brownell, 2008) were represented in this sample. Third, participants were recruited from a range of sectors and were diverse in age and gender however experiences may vary depending on these demographics. The majority of participants were female, yet this may be more reflective of obesity stigma experiences as research has suggested that women are at greater risk of weight bias (Puhl, Andreyeva & Brownell, 2008). Future work focusing on the experience of one demographic may build a deeper understanding. Fourth, the interviews were conducted by telephone. While this methodology has been criticised for the lack of visual cues (Novick, 2008), it enabled interviews to be conducted with participants who were located in different areas of the country and may have enabled participants to feel more relaxed because they were able to remain "on their own turf" (McCoyd & Kerson, 2006, p. 399). Finally, this research focused on individuals with obesity yet negative attitudes towards individuals who are underweight may also be held (Mond, Robertson-Smith & Vetere, 2006). Negative attitudes towards individuals who are underweight is an important area to research however the focus of this research was due to the high prevalence of obesity in the UK.

6.5.6 Implications for further research and practice

The findings from this study highlight that obesity stigma is experienced throughout an individuals' working life, in a range of ways. Although other studies have recognised this, this is one of the first to demonstrate this through the voice of employees, particularly employees with obesity, and at the same time gather recommendations as to how this can be tackled. The findings show that the experience of working with individuals with obesity plays a key role in how individuals shape their assumptions and beliefs; in the majority of cases, working with employees with obesity had challenged preconceived stereotypes and assumptions. Further research should consider the mechanisms by which anti-fat attitudes

are changed, whether this is through a personal relationship or training, or a mixture of both. This study has also highlighted the potential negative impact of workplace health promotion programmes. Given the focus on wellbeing in the workplace, building on the work of Tauber et al. (2018), further research is warranted to explore the experience of employees with obesity in organisations with a strong health and wellbeing culture.

Together these findings suggest that to overcome obesity stigma, modifying the workplace in isolation is not likely to be sufficient; changes at the societal level are also required. One way of changing societal norms is through the media; actions such as using non-stigmatising images in articles about obesity is one action that is easy to implement. Research investigating interventions has shown mixed results. Diedrichs and Barlow (2011) found evidence to suggest that a brief, education-based intervention positively impacted on beliefs about individual control of weight and negative attitudes towards individuals with obesity. Whilst Gloor and Puhl (2016) found that empathy-evoking and perspective-taking strategies may help to improve empathy and affective reactions, these strategies also resulted in an increase in fat phobia. Further research is therefore required to investigate the most suitable intervention to decrease weight bias.

6.6 Conclusions

The findings from this study highlight that obesity stigma is experienced throughout an individuals' working life, in a range of ways. Through the voice of employees and particularly employees with obesity, this paper presents the stigmatising experiences employees with obesity encounter at work. The findings suggest a number of factors impact on obesity stigma, notably the experience of working with employees with obesity, and provide recommendations to overcome obesity stigma at work. The findings also provide support for the model of obesity in the workplace developed in chapter four and highlight the variety of moderators and mediators that may impact on obesity stigma.

6.7 Reflexivity

The method used for gathering data was telephone interviews which meant that participants were not able to see that I am an 'average weight' individual and I only shared this information if I was asked. I had a couple of employees with obesity who asked me at the end of the interviews whether I had a problem with my weight and when I responded that I did not I was asked why I was interested in the topic. As someone who has not personally experienced weight stigma, I did find that I had quite emotive responses to some of the interviews. There was one employee with obesity who described some of their experiences, and even though I had read about these experiences in the literature, I found it very emotive to hear about their personal experience of stigma in the workplace, their story of how they had put on weight and the events that happened that had contributed to their weight gain. I think that many average weight individuals would be shocked to read some of the findings from this study as I think obesity stigma often goes unnoticed or is normalised within society. I am definitely much more aware now of the reactions to individuals with obesity within certain spaces (e.g. public transport) and the portrayal of individuals with obesity in the media – both characters played, and images used with articles related to obesity. I also had a response from one potential participant which I was very surprised by – I contacted the individual as I had heard them on a podcast about weight stigma however they responded very negatively to my email. In the email there was also an assumption that I was thin because I had not said otherwise, and they questioned the impact of the research. I was quite surprised to receive this email and it did make me question the impact of the research. However, in some of my interviews, some of the participants thanked me for conducting the research as they recognise the benefits of academic research and the potential impact. During the course of my PhD I was very lucky to be able to attend a keynote given by Dr Rebecca Puhl and I went to speak to her after her keynote. Part of our conversation was around the experiences of being an 'average weight' individual when researching this topic and she very kindly offered that if I ever needed to talk to her about my experiences then I could contact her.

Weight and weight stigma is a sensitive and complex topic to research and one element of this complexity is the terminology that can be used. A range of terms can be used within this field (e.g. 'heavy', 'overweight', 'fat', 'obese', 'person with obesity') and this was something that I certainly saw come alive in my research. Recently, there has been a shift towards using person first language, for example this has been implemented by The Obesity

Society, and specific weight-focused journals (Kyle & Puhl, 2014) however the use of person first language is still viewed by some as problematic (Meadows & Danielsdottir, 2016). Generally, the word 'obese' tends to be used by researchers and healthcare professionals (Puhl, 2020). In line with this and the use of BMI classifications in this study, the terms 'obesity' and 'obese' were used in this research however during the interviews, it became clear that a number of employees with obesity preferred the word 'fat' to 'obese.' Although many individuals perceive the word 'fat' to be derogatory, amongst fat activists it is the preferred terminology as it used as a neutral descriptor (Meadows & Danielsdottir, 2016). In her recent systematic review Puhl (2020) found that neutral words such as 'weight' or 'unhealthy weight' were preferred and that 'obese' and 'fat' were typically viewed negatively. However, for some words such as 'obese' and 'BMI' different groups demonstrated different preferences reflecting individual differences in terminology preference and the complexity of terminology. This is hard to navigate whilst researching and speaking to participants, but also plays heavily on one's mind when writing as one is conscious of both the participant variations and the academic norms seen throughout journal articles. Puhl (2020) concludes, in line with other findings, that there is no straightforward answer regarding what terminology should be used to describe individuals of a higher body weight. In drawing together learnings from other academics working in the field, and my own experiences, I believe that preferences for language will vary depending on the individual which has implications for both healthcare professionals and researchers. As a researcher in this field it is important for me to be very aware of the language I use and how it can impact on participant responses and consequently results. My aim is to take a nuanced approach and use the most suitable terminology within the context of the research aims.

Chapter 7: Discussion

This final chapter draws together the previous six chapters. The aim of this chapter is to: i) recap the aims of the thesis and amalgamate the findings from the three studies ii) review the limitations and future directions iii) reflect on the practical implications of this thesis iv) reflect on the contribution to knowledge and v) provide final conclusions.

7.1 Aims and overall findings

7.1.1 Aims of the thesis

The aim of this thesis was to examine obesity stigma in the workplace, both the evidence for, and the experience of, obesity stigma. This is because obesity stigma has i) consistently been found to negatively impact physiological and psychological health (Wu & Berry, 2018), ii) the role obesity stigma plays in tackling obesity is currently underestimated and overlooked and iii) obesity stigma is likely to have a number of organisational implications. Specifically, further research was needed because limited research has been conducted in the workplace, in particular in the UK workplace, and in order to design effective interventions to address obesity stigma, a greater understanding of the experiences of obesity stigma and how and when it is occurring in the workplace is required. To address the aim of this research, three studies were conducted.

7.1.2 Findings from study one

Firstly, a systematic literature review was conducted. Forty five searches were conducted in 3 databases and 38 studies met the eligibility criteria. The results of the study suggest that the available evidence for obesity stigma in the workplace is promising. The findings showed that individuals with obesity were rated more negatively in performance reviews, less likely to be recommended for hire, recommended for harsher discipline, less likely to be selected for supervisory positions and people have lower training expectations of individuals with obesity. However, this study highlighted that the conclusions that can be drawn are limited. This is because of the variety of study designs and measures used; in addition, the quality assessment identified that many of the papers were of low quality. Another limitation of the literature is that much of the research has focused on the recruitment stage of the employment cycle and has been conducted in the US. Therefore, a

UK focused study was designed to examine obesity stigma in the context of disciplinary actions.

7.1.3 Findings from study two

The second study was a cross-sectional vignette study which was conducted amongst a sample of UK based nursing managers. The aim was to examine weight bias in decisions relating to disciplinary actions amongst nursing managers. This study is to our knowledge the first to examine weight bias in nursing. The results showed that there was a positive association between BMI and experience of weight stigma which was approaching significance. Interestingly, there were no significant differences between the disciplinary actions selected for employees with obesity and employees of average weight. Therefore, suggesting there was no evidence of obesity discrimination in disciplinary decisions. However, the results showed that 66% of the sample were categorised - using their self-reported height and weight to calculate their BMI - as overweight, obese or severely obese. The results also highlighted that the mean fat phobia score was indicative of 'negative attitudes' towards a person with obesity. The combination of these two findings suggests that internalised weight stigma may exist and presents evidence for the pervasiveness of weight stigma. However, some of the limitations of this study are that self-report scales were used, which may have resulted in social desirability bias and it was a hypothetical scenario. Therefore, a third study was conducted; this field study focused on the UK workplace and aimed to understand the experiences and beliefs of those with obesity, those with whom they work and those who influence policies and practices.

7.1.4 Findings from study three

For the third study 21 UK employees participated in cross-sectional telephone interviews. The aim was to explore, through the first-person narrative of a range of employees, the stigmatising experiences employees with obesity encounter once they are within an organisation. The findings highlighted the diverse range of obesity stigma individuals with obesity are subjected to in the workplace, for example, inappropriate comments and name calling, lack of provision of adequate equipment and stigmatising recruitment experiences. Five overarching factors were found to impact on obesity stigma in the workplace: assumptions about obesity, social norms, experiences of working with employees with obesity, individual characteristics and organisational norms. The findings

suggest that to overcome obesity stigma both modifications to the workplace and changes at the societal level are required.

7.1.5 Overall findings

The findings from this thesis suggest that anti-fat attitudes are prevalent and that obesity stigma in the workplace may be occurring in a variety of situations.

The systematic literature review findings show that although a number of studies have investigated obesity stigma in the workplace, much of the research is US centric and many of the studies are low quality. There are also methodological limitations due to the wide variety of measures used to assess obesity stigma. The systematic literature review addressed some of the gaps in the literature by identifying that much of the research has been conducted in the recruitment stage of the employment cycle and that 'belief' and 'behaviour' are the most commonly studied facets of obesity stigma.

The thesis presents a key theoretical contribution through the development and articulation of a model of obesity stigma in the workplace. This model was initially developed as part of the systematic literature review and in study three the interview data was mapped against it to illustrate the model using participant quotes. The model brings together the complex antecedents of obesity stigma, highlights factors (e.g. moderators and mediators) that may impact on obesity stigma whilst also illustrating what obesity stigma in the workplace might look like.

The findings in this thesis also extend our understanding of the application of known theories in the context of obesity stigma. Although the findings from the thesis provide some support for attribution theory, they also highlight some of the limitations of applying it in this context. For example, attribution theory cannot explain why negative attributions do not always result in biased behaviour, why individuals initially have these negative attributions and how they originate. Supporting this, this thesis suggests that the 'feeling' element of stigma is under researched. Using the pathogen avoidance mechanism theory to explain obesity stigma furthers our understanding of stigma by providing an evolutionary explanation for why individuals feel disgust in the first place. This hypothesis proposes that individuals want to avoid those with physical abnormalities because these abnormalities may be reflective of infection, as a consequence when individuals see certain bodily cues this triggers

disgust. However, it has been proposed that the disgust that individuals experience may result from socio-cultural influences rather than innate processes (O'Brien, Danielsdottir, et al., 2013). This idea is supported by the fact that ideal body image has changed over time, for example the ideal female body image used to be full bodied and fat (Calogero et al., 2007) and varies by culture (Furnham & Baguma, 1994) suggesting that the disgust individuals feel may be socially constructed and culturally bound.

Supporting some previous research (Allan et al., 2016; Polinko & Popovich, 2011) this thesis suggests that the relationship between biased beliefs and biased behaviour is complex as biased beliefs do not necessarily translate into biased behaviour. This has implications for the design of interventions as it suggests that interventions may need to manipulate not only beliefs about the causes and controllability of obesity but also emotions.

Although weight bias internalisation was not a specific measure included in this thesis, the results support the idea that individuals with obesity experience internalised weight stigma, where they direct stigma and anti-fat attitudes towards themselves. There has been less research that has investigated the impact of weight bias internalisation compared to stigma demonstrated by others however a recent review found evidence to suggest it is associated with negative mental and physical health, although less studies have examined the impact on physical health (Pearl & Puhl, 2018). Weight bias internalisation within the context of attribution theory is interesting as the theory postulates that obesity is attributed to causes that the individual can control. However, given their personal experiences of obesity it could be proposed that individuals with obesity might believe that obesity is less controllable. This demonstration of weight-bias internalisation amongst individuals with obesity supports the idea that the stigma is very much affected by socio-cultural influences such as thin-ideal internalisation.

The findings from this thesis are from an organisational psychology perspective and add a unique perspective to the literature as much of the previous literature has been conducted from the perspective of other psychology disciplines, for example, clinical, social or sports and exercise psychology. To our knowledge, examples of obesity stigma derived from the UK workplace are limited and this thesis provides further evidence to justify the development and delivery of evidence-based interventions to decrease obesity stigma in the workplace. In particular, this thesis demonstrates some of the less frequently examined

experiences of obesity stigma, such as inappropriate comments and name calling, lack of adequate equipment and exclusion from specific workplace activities. The thesis also provides examples of suggestions for how to overcome obesity stigma in the workplace including the perspectives of individuals with obesity who are often excluded from such research.

7.1.5 Synthesis of findings

Table 7.1: *Synthesis of findings from the thesis*

	Study 1	Study 2	Study 3
Study aims	• Examine the available evidence for obesity stigma in the workplace • Identify the stages of the employment cycle in which obesity stigma has been examined • Identify the key mechanisms impacting upon obesity stigma	• Examine weight bias in decisions relating to disciplinary actions amongst nursing managers • Examine both implicit and explicit bias • Examine associations between dependent variables (e.g. fat phobia and beliefs about the controllability of obesity)	• Understand the experience of obesity stigma in UK workplaces • Identify the factors that impact on obesity stigma in the workplace • Offer insights into how obesity stigma at work can be overcome to inform the development of effective evidence-based interventions to address obesity stigma
Method	• Systematic literature review • 45 searches which yielded 1773 titles	• Cross-sectional • Online vignette study	• Telephone interviews with 21 employees • Thematic analysis
Sample	• 38 papers were identified as being eligible for inclusion • 30 studies from the US, 3 from NZ, 3 from European countries, 1 was from 3 European countries, 1 did not specify	• 71 UK based nursing managers – 53 females and 18 males • 92% of the sample work in the public sector • Mean BMI was 28.26 kg/m²	• Six Human Resources and Occupational Health professionals and one employment lawyer working with HR professionals • Seven employees with obesity • Seven employees of diverse body sizes • 13 females and 8 males • 11 participants work in the public sector

	Study 1	Study 2	Study 3
Key findings in relation to evidence for obesity stigma	• Promising evidence available to support the existence of obesity stigma in the workplace • Many of the studies have examined obesity stigma during recruitment • Over half the studies used student populations • The majority of the research was based on hypothetical situations • The majority of research has been conducted in the US • 33 studies measured the 'behaviour' element, 29 measured the 'belief', six measured the 'feeling' • Limited understanding of the mechanisms of stigma – limited number of studies have focused on a narrow number of mediators and moderators	• No evidence to support obesity discrimination in disciplinary decisions amongst nursing managers • The mean fat phobia score was 3.32 which reflects 'negative attitudes' towards a person with obesity • Findings suggest that nursing managers displayed explicit bias but not implicit bias • Stereotypical beliefs did not appear to translate into discriminatory behaviour • Non-significant negative correlation between controllability of obesity and fat phobia • Non-significant negative correlation between controllability of obesity and BMI • Non-significant negative correlation between fat phobia and BMI	• Diverse range of experiences of obesity stigma described • Five overarching factors impact on obesity stigma in the workplace: assumptions about obesity, experience of working with employees with obesity, individual characteristics, social norms, and organisational norms • The findings suggest that to overcome obesity stigma in the workplace change is required both at the societal and organisational level. The findings also highlighted that in trying to address obesity stigma there is a fear of fat shaming and causing offence
Key findings in relation to experience of obesity stigma		• Non-significant positive correlation between BMI and experience of weight stigma • 48% of the sample report being teased because of their weight • 24% of the sample report being treated unfairly because of their weight • 18% of the sample report being discriminated against	• Four key themes identified in relation to the experience of obesity stigma in UK workplaces: recruitment experiences, inappropriate comments and name calling by colleagues and clients, lack of provision of adequate equipment and exclusion from specific workplace activities

7.2 Implications

A number of implications – both theoretical and practical - can be drawn from the thesis.

7.2.1 Theoretical implications

The findings from the thesis provide some support for attribution theory however they also highlight some of the limitations of attribution theory in the context of obesity stigma. For example, although participants did demonstrate anti-fat attitudes and negative stereotypes this did not result in discrimination. Therefore, further research is required to explore what factors need to be in place for a negative attribution/biased belief to result in biased behaviour. It is possible that the role of the 'feeling' element of stigma is under looked. Much of the research has focused on the 'belief' and 'behaviour' elements rather than the 'feeling' however it may be possible that individuals need to experience a negative feeling and biased belief to then demonstrate biased behaviour. The evidence supporting the key role of disgust in obesity stigma is promising and further research is required. The findings also provide support for the model of obesity stigma in the workplace which was developed as part of this thesis which could be used as a framework in future research.

7.2.2 Practical implications

There are a variety of implications for organisations as a result of these findings. Firstly, organisations should consider when obesity stigma might be occurring in their organisations and how they could mitigate it especially as the results suggest that some individuals may not even be aware that they are stigmatising. For example, organisations could challenge their recruitment processes such as the use of candidate photos. Organisations could also provide education around the complexity and multifactorial nature of obesity. The results, which are in line with other research (Rubino et al., 2020) suggest that there is a gap between the scientific knowledge of obesity and the public narrative of obesity, in particular the narrative that relates to the causes of obesity. There is also a lack of knowledge of the negative impact of obesity stigma. It is recommended that organisations consider providing education about both of these as part of their health promotion activities.

Many organisations are now running a range of health and wellbeing initiatives some of which focus on weight loss. Whilst these may be beneficial to some individuals,

organisations should reflect on the language and images that are used to promote these initiatives. For example, are the images stigmatising, is the language linked to moralisation and strongly focused on individual behaviour. Organisations should also reflect on whether the messages instil blame and shame to those of a higher body weight. Free non-stigmatising images can be accessed from The European Association for the Study of Obesity website. Many organisations who are already supporting employees to lose weight could also discuss with the employees whether provision of support regarding experiences of weight stigma is a potential additional element of initiatives that employees would be interested in. For example, sharing experiences of weight stigma and discussing positive coping mechanisms.

At the societal level, one of the key implications is for the media. Both in terms of the images and terminology used within articles about obesity but also in the portrayal of obese characters who often reflect many of the negative stereotypes. This is particularly true for women of a higher weight. The message that weight equals health and weight equals worth is clear amongst society however this is not the message that should be portrayed and regardless of anyone's size every individual should be treated equally. Although there are sections of society that are moving towards more inclusivity, such as the Health At Every Size movement, there is still a very strong focus on aesthetics and a very clearly defined body image ideal which individuals are encouraged to attain. One of the ways of changing this is to increase diversity in terms of images that are used in the media. There should also be greater recognition within society of the social determinants of health (e.g. education, income and educational class) which research has shown are associated with obesity (Faeh, Braun, & Bopp, 2011). In addition, research has also shown the links between body weight ideals and resource scarcity (Swami et al., 2011) which again highlights the socio-cultural influences on stigma.

7.3 Limitations and future directions

As with all research, there are a number of limitations. Key limitations are considered as individual study limitations are discussed in the respective chapters.

7.3.1 Methodology

The methodology of the thesis was mixed methods. This was chosen for a number of reasons; firstly, it enables a broader understanding of the research topic to be gained than

would be available through distinct qualitative and quantitative findings (Creswell & Plano Clark, 2017), secondly, the strengths of both approaches balance the weaknesses (Creswell & Plano Clark, 2017) and finally, limited research into obesity stigma in UK workplaces has been conducted therefore it was advantageous to improve the knowledge of this topic using a range of perspectives rather than just one (Andrew & Halcomb, 2011). However, qualitative and quantitative research are usually associated with two different epistemological approaches which has been proposed as both a strength and a criticism of mixed methods (Bryman, 2012; Johnson & Onwuegbuzie, 2004). In this thesis this was viewed as a strength as it enabled the best appropriate methods and associated philosophical assumptions to be taken to address each research question therefore enabling more flexibility. However, another limitation of the mixed methods approach is that it can be hard to undertake due to the understanding, time and resources required to conduct a mixed methods study (Johnson & Onwuegbuzie, 2004). In addition, there are certain constraints when conducting doctoral research, for example, there was limited time in which to conduct all the studies and limited access to employees.

Another limitation is that this thesis did not specifically explore implicit bias and research suggests that there may be differences in levels of implicit and explicit bias shown by individuals (Phelan et al., 2014). However, the vignettes used in study 2 were a way of measuring the presence of implicit bias because although they do not specifically measure implicit attitudes, psychologists acknowledge that vignettes can be used to identify the existence of implicit bias (FitzGerald & Hurst, 2017). Additionally, in study 3 participants provided examples of when they felt they had experienced implicit bias.

7.3.2 Theoretical framework

The theoretical lens through which this thesis examined weight stigma was attribution theory although the role of the cultural values thin-ideal internalisation and healthism were also considered. Attribution theory (Heider, 1958) is a popular theory for explaining weight bias and is often used by researchers with a weight centric perspective (Nutter et al., 2016).

Some support for attribution theory was shown in study 2 as although it was a non-significant finding the results did show that those that held stronger beliefs that obesity is controllable were more likely to have greater fat phobia, therefore offering support for the link between the negative stereotypes associated with obesity and perceived controllability.

However, the findings from study 2 showed that the mean score on the Fat Phobia scale (Bacon, Scheltema & Robinson, 2001) was reflective of 'negative attitudes' towards individuals with obesity. As this scale examines the amount respondents associate stereotypical characteristics (e.g. lazy, no will-power, weak) with being fat, it is proposed, using attribution theory, that these scores would result in discriminatory behaviour being displayed. Similarly, examining the results on the Beliefs About Obese Persons scale (Allison, Basile & Yuker, 1991) the lower score in this sample suggested that the participants tend to have stronger beliefs that obesity is controllable. Therefore, it was proposed that these scores would result in discriminatory behaviour. Yet neither of the results showed evidence of discriminatory behaviour and the theory is limited in explaining these unexpected results.

The findings from study 3 also provide support for attribution theory because many of the stigmatising experiences that individuals described appeared to be based on the assumptions that people have about obesity and included stereotypes about certain characteristics. Similarly, examining the comments that employees with obesity receive from their colleagues and clients, some of these relate to control and individual responsibility. For example, advice about certain diets and exercise is often given. Some support was also provided for attribution theory when examining the factors identified as impacting on obesity stigma as one of the factors was the experience of working with employees with obesity. For many of the participants it challenged their previously held stereotypes. For example, one participant talked about how she thought if an employee could not be disciplined enough to restrict her food intake (i.e. low control) then how would she be disciplined enough to work hard. Subsequently, she said that the employee with obesity was one of the most hardworking and conscientious people and exploded her unconscious bias. The findings from study 3 also support the influence of the cultural values thin-ideal internalisation and healthism as participants mentioned the emphasis in society on being both thin and healthy and that this is reinforced through the media.

However, one of the limitations of attribution theory is that it does not provide a clear explanation of the emotional bias element of stigma as it cannot explain why people have these negative judgements about obesity in the first place (van Leeuwen, Hunt & Park, 2015). This is where an alternative explanation of obesity stigma, for example the pathogen avoidance mechanism, may be useful. This is because this hypothesis proposes that individuals want to avoid those with physical abnormalities because these abnormalities may

be reflective of infection, as a consequence when individuals see certain bodily cues this triggers disgust. There is increasing evidence for the role of pathogen avoidance mechanisms within obesity stigma (Park, Schaller & Crandall, 2007) and research has demonstrated support for the role of disgust in obesity stigma. For example, a number of emotions are associated with obesity stigma. Intergroup emotions are those the individuals feel towards a social group and the most frequently associated with obesity stigma are 'moral emotions' i.e. disgust, contempt and anger (Hutcherson & Gross, 2011; Rozin, Lowery, Imada & Haidt, 1999). However, much of the research in this area has focused on disgust (Vartanian, Trewartha & Vanman, 2016).

Lieberman, Tybur and Latner (2012) proposed three areas in which disgust motivates avoidance: pathogen disgust, sexual disgust and moral disgust. In their research they found that amongst women, pathogen disgust sensitivity was a predictor of obesity stigma. Thus, disgust sensitivity, which is defined as "a term used to describe individual differences in reactivity toward elicitors of disgust" (Lieberman et al., 2012, p. 1803), has been proposed as a potential factor influencing obesity stigma. In his study, Vartanian (2010) found that the strongest predictor of negative attitudes towards individuals with obesity was disgust, it also mediated the relationship between perceived control and attitudes towards individuals with obesity. More recent research also supports the idea that disgust is an element of weight bias; participants who saw a photo of a person with obesity displayed more disgust, negative attitudes and stereotypes than when they saw a photo of a person without obesity and they displayed more desire for social distance (Vartanian et al., 2016). In addition, disgust mediated the effect of weight on attitudes, stereotypes and social distance (Vartanian et al., 2016). The association between disgust and obesity may also be due to socio-cultural influences rather than innate processes (O'Brien, Danielsdottir, et al., 2013) because disgust is linked with morality and people with obesity are often viewed as immoral. Taken together, these findings have implications for designing interventions to address weight bias because they suggest that emotions may need to be influenced rather than beliefs about the causes and controllability of obesity (Vartanian et al., 2016).

It is recommended that to advance knowledge about obesity stigma at work future research considers all three elements of stigma – emotional bias, mental bias and behavioural bias. In addition, further research is required to investigate the most suitable intervention to

decrease weight bias as mixed results have been found using attribution theory and empathy-evoking and perspective-taking strategies (Diedrichs & Barlow, 2011; Gloor & Puhl, 2016).

7.3.3 Participants

There are also limitations associated with the unique working samples in both study 2 and study 3. Nursing managers were chosen as the sample for study 2 for a number of reasons. Research suggests there is a high prevalence of obesity amongst nurses (Kyle et al., 2017) and has demonstrated weight stigma amongst healthcare professionals directed at patients (Swift, Hanlon et al., 2013). In addition, weight bias in the workplace has been identified (Puhl, Andreyeva & Brownell, 2008; Roehling et al., 2013) and therefore, it was proposed that weight stigma between healthcare colleagues may exist. Specifically, nursing managers were chosen because the focus of the research was on disciplinary decisions and junior nurses would be less likely to be involved in disciplinary decisions. This study provided insight into fat phobia in a unique sample however, there are implications of using a sample of managers as level of experience may affect displays of bias. Marlowe, Schneider and Nelson (1996) found that more experienced managers were less likely to display gender and attractiveness biases in the recruitment context. The specific population of nursing managers also proved challenging to recruit which limited the sample size; a larger sample size would have enabled further analyses and comparisons between the different weight categories to be conducted as the group sizes would have been bigger. Further research could also explore differences in obesity stigma amongst nurses with different levels of experience.

For study 3, the aim was to explore obesity stigma in UK workplaces and therefore employees were drawn from a range of organisations. This was the first study, to our knowledge, to explore, through the first-person narrative of a range of employees, the experience of weight stigma of employees. This was because much of the research in this field has examined obesity stigma through the lens of one group in isolation and has in general explored it experimentally (e.g. Giel et al., 2012). The qualitative research that has been conducted tends to focus solely on the experiences of individuals with obesity (e.g. Puhl, Moss-Racusin, Schwartz & Brownell, 2008) therefore this study focused specifically on the workplace and aimed to provide a broader picture across the different participant groups to understand a variety of perspectives. The findings provide further evidence to support the calls for interventions to address obesity stigma, however, it is recognised that experience may vary by sector and different strategies to address obesity stigma may be required

dependent on both the sector and specific organisation. Further research could gather data from one sector in order to design a bespoke intervention.

7.4 Practical implications

A number of practical implications – both for organisations and for further research - can be drawn from the three studies.

Study 1 suggests that there is a need to consider how organisations monitor, review and mitigate obesity stigma at recruitment, onboarding, training, promotion and development. It is also important that organisations increase their awareness of potential stigma throughout the employment cycle. One of the practical implications drawn from study 1 with regards to further research is that more research is needed from across the employment cycle to help develop a comprehensive understanding of obesity stigma, in particular UK based research is lacking; research is also required to help inform the development of interventions to address obesity stigma.

Study 2 suggests that organisations, and in particular, those in the healthcare sector should consider running training for employees to reduce fat phobia as this will have the potential to positively impact not only on interactions with colleagues but also patients. These findings also demonstrate the high prevalence of overweight and obesity amongst nursing managers; organisations may wish to consider how they can support employees who wish to lose weight. Workplace weight management interventions could be considered as a place to provide support for weight loss in addition to discussing both the experiences of weight stigma and effective coping mechanisms. This in line with recent research recognising the important role of mental wellbeing in managing obesity. For example, in the recent BPS report - Psychological perspectives on obesity: Addressing policy, practice and research priorities – the importance of knowledge of the links between psychological factors and mental health conditions and obesity is discussed (British Psychological Society, 2019). Additionally, a qualitative study highlighted that in programmes designed to address obesity there is insufficient support provided for mental health issues (Rand et al., 2017). Further research is also required to explore the complex relationship between fat phobia and discrimination to help understand why negative attitudes do not always result in discriminatory behaviour.

Study 3 suggests that there may be a potential negative impact of workplace health promotion which may be underestimated, and further research is required to explore the link between workplace wellbeing initiatives and obesity stigma. In the current climate, where the focus on health and wellbeing at work continues to grow, organisations need to be aware of how to negate some of these potentially negative impacts when implementing health and wellbeing programmes. For example, research has shown that images used with anti-obesity campaigns can influence weight stigma therefore it is important to consider - both in the context of workplace wellbeing and public health campaigns - the images used in campaigns to address obesity (Johnstone & Grant, 2019). Furthermore, it is possible that weight focused campaigns may not have the desired impact on health behaviour change. For example, examining public health campaigns, Simpson, Griffin and Mazzeo (2019) found that a weight-focused campaign in comparison to a weight-neutral campaign was associated with higher negative perceptions to obesity and lower self-efficacy for health behaviour change. Thus, suggesting that weight-focused campaigns may not be an effective form of encouraging behaviour change. In addition, further research is required to explore the mechanisms by which anti-fat attitudes are changed; findings from study 3 suggest that the experience of working with individuals with obesity plays a key role in how individuals shape their assumptions and beliefs, therefore more research is required to explore whether anti-fat attitudes can be changed through training and to identify the most effective form of training.

Taken together, the findings from this thesis highlight a number of practical implications for organisations to address obesity stigma. Organisations should strongly consider, how they can monitor and mitigate obesity stigma and what initiatives can be implemented to address obesity stigma – including building awareness about the causes of obesity. The research suggests that this is particularly relevant in the context of recruitment however, this is partly because most of the research has been conducted at this stage of the employment cycle and because this is most likely to be the stage of the employment cycle where there is no previous relationship with the employee with obesity. One popular method of diversity and inclusion training is unconscious bias, however there are some doubts regarding its efficacy (Atewologun, Cornish & Tresh, 2018), and it is proposed that a perspective-taking approach may be more effective (Bohnet, 2016). Anti-fat attitudes may be hard to change however study 3 suggested that the experience of working with individuals with obesity plays a key role in how individuals shape their assumptions and beliefs. It is also recommended that organisations consider how wellbeing initiatives are implemented – the

strong focus on individual level behaviour may negatively contribute to obesity stigma – and ensure that individuals who choose not to participate are not shamed. In addition, it is important to consider the communication around these initiatives. For example, is the messaging about weight linked to moralisation, e.g. 'good' foods and 'bad' foods and providing a strong emphasis on individual level behaviour. Additionally, what images are being used to promote these programmes – these should be non-stigmatising images, which are freely available from The European Association for the Study of Obesity.

7.5 Contribution to knowledge

The findings from this thesis provide unique contributions to the obesity stigma literature in a number of ways.

Study 1 provides the first, to our knowledge, systematic literature review of obesity stigma in the workplace. Previous reviews of the literature had not adopted such a robust design, nor had they conducted a quality assessment of the evidence. One of the strengths of the systematic literature review was that it identified at what stages of the employment cycle obesity stigma has been examined. This was important to identify because how obesity stigma is demonstrated may vary dependent on the stage of the employment cycle. Another strength is that the systematic literature review highlighted some clear gaps in the literature; for example, the majority of the research has been conducted in the US and based on hypothetical situations, with much of the research being focused on the recruitment stage of the employment cycle and over half the studies using student populations.

To address some of these gaps study 2 was conducted which is the first study, to our knowledge, to examine weight bias amongst nursing managers in the context of the workplace. The findings contribute to the growing literature demonstrating the prevalence of anti-fat attitudes amongst healthcare professionals. Although there was no evidence of behavioural bias in the employment context it is possible that there are implications of these findings particularly in the context of healthcare. Phelan et al. (2015) proposed that these negative attitudes and stereotypes have the potential to impact on the quality of care that patients receive. Whilst providing support for attribution theory, the unexpected findings also support previous research which has demonstrated the complex relationship between belief/attitude and behaviour (Allan et al., 2016; Polinko & Popovich, 2011).

Study 3 is the first study to our knowledge to explore experiences of obesity stigma in the UK workplace amongst a range of employees. It also explored ideas for how to reduce weight stigma and to date limited research has explored this from the perspective of individuals with obesity. This study provided unique insights into the types of obesity stigma employees experience, providing support for the body of literature that has examined obesity stigma at the recruitment stage of the employment cycle in addition to providing new insights. Much of the research to date has examined obesity stigma in the workplace experimentally therefore it has not been possible to gather insights such as these. For example, the findings demonstrate less frequently examined experiences of obesity stigma, such as inappropriate comments and name calling, lack of adequate equipment and exclusion from specific workplace activities. Another unique contribution of these findings is the evidence of the potential negative impact of workplace wellbeing initiatives. This finding provides support for an emerging body of literature (e.g. Powroznik, 2017; Tauber et al., 2018).

The findings presented in this thesis add to the body of literature examining obesity stigma in the workplace and offer further evidence to justify the development and delivery of evidence-based interventions to reduce obesity stigma in the workplace.

7.6 Conclusions

The findings from this thesis further contribute to the growing evidence examining obesity stigma in the workplace. The results suggest that obesity stigma in the workplace may be occurring in a variety of situations and colleagues in the workplace may not even be aware that they are stigmatising individuals with obesity. Organisations should consider providing further information to employees to increase awareness of the complex and multifactorial nature of obesity. The findings also suggest that there is a potentially negative impact of workplace wellbeing initiatives. It is essential for organisations to consider how such wellbeing initiatives, especially weight loss focused ones, are implemented and in particular the language and images used to promote these.

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Appendix

Appendix I: Participant information sheet for study 2

Participant Information Sheet

Are you a UK based nursing manager?

Researchers at Kingston University are recruiting UK based nursing managers to participate in online research. They are interested in understanding how decisions relating to disciplinary actions are made and factors that impact on these decisions.

Participation will involve anonymously completing an online questionnaire which will include some short scenarios involving decisions relating to disciplinary actions. In the short scenarios you will be asked to select the behaviour you think would be your most likely response if the situation were real. The survey should take approximately 10-15 minutes to complete.

No clear risks or disadvantages of taking part in this study have been identified. Responses will be anonymous, and you will be free to withdraw from the study at any time and without giving a reason. You can request access to your data and if you would like to withdraw your data please contact the principal investigator listed using the details below.

Data will be stored securely in accordance with the GDPR (2018). The data will be analysed and used as part of the PhD thesis and to generate journal articles.

If you would like to hear about the findings at the end of the research, please email the Principle Investigator and she will provide a summary once all the information has been gathered and reviewed.

Contact details of the researcher at Kingston University London:

Principal Investigator: Kate Godfree
Contact email: k1647768@kingston.ac.uk

Supervisor: Dr Joanna Yarker
Contact email: Joanna.yarker@kingston.ac.uk

If you have any questions about the research, please do contact the Principal Investigator of if you would prefer to contact her supervisor please do.

The research has received a favourable ethical opinion from the Research Ethics Committee of the Faculty of Business and Social Sciences at Kingston University London.

If you wish to complain about any aspect of how you have been treated in this research, please contact Professor Jill Schofield who is the Dean of the Faculty of Business and Social Sciences at Kingston University London. Professor Schofield's contact details are as follows: Dean's Office, Faculty of Business and Social Sciences, Kingston University London, Penrhyn Road, Kingston upon Thames KT1 2EE. Email: j.schofield@kingston.ac.uk Tel: 020 8417 9000 ext. 65229'

Appendix II: The vignette study (study 2)

Start of Block: Introduction

Thank you for your interest in this research. Participation will involve anonymously completing an online questionnaire which will include some short scenarios related to decisions regarding disciplinary actions. In the short scenarios you will be asked to select the behaviour you think would be your most likely response if the situation were real. The survey should take approximately 10-15 minutes to complete.

Participant Information Sheet Are you a UK based nursing manager?

Researchers at Kingston University are recruiting UK based nursing managers to participate in online research. They are interested in understanding how decisions relating to disciplinary actions are made and factors that impact on these decisions. Participation will involve anonymously completing an online questionnaire which will include some short scenarios involving decisions relating to disciplinary actions. In the short scenarios you will be asked to select the behaviour you think would be your most likely response if the situation were real. The survey should take approximately 10-15 minutes to complete. No clear risks or disadvantages of taking part in this study have been identified. Responses will be anonymous, and you will be free to withdraw from the study at any time and without giving a reason. You can request access to your data and if you would like to withdraw your data please contact the principal investigator listed using the details below. Data will be stored securely in accordance with the GDPR (2018). The data will be analysed and used as part of the PhD thesis and to generate journal articles. If you would like to hear about the findings at the end of the research, please email the Principal Investigator and she will provide a summary once all the information has been gathered and reviewed. **Contact details of the researcher at Kingston University London: Principal Investigator:** Kate Godfree Contact email: k1647768@kingston.ac.uk **Supervisor:** Dr Joanna Yarker Contact email: Joanna.yarker@kingston.ac.uk **If you have any questions about the research, please contact the Principal Investigator or if you would prefer to contact her supervisor please do.** The research has received a favourable ethical opinion from the Research Ethics Committee of the Faculty of Business and Social Sciences at Kingston University London. If you wish to complain about any aspect of how you have been treated in this research, please contact Professor Jill Schofield who is the Dean of the Faculty of Business and Social Sciences at Kingston University London. Professor Schofield's contact details are as follows: Dean's Office, Faculty of Business and Social Sciences, Kingston University London, Penrhyn Road, Kingston upon Thames, KT1 2EE.Email: j.schofield@kingston.ac.uk Tel: 020 8417 9000 ext. 65229

End of Block: Introduction

Start of Block: Consent

Taking part in the study

I have read and understood the Participant Information Sheet, or it has been read to me. I have been able to ask questions about the study and my questions have been answered to my satisfaction.

- ○ Yes (1)
- ○ No (2)

I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions and I can withdraw from the study at any time, without having to give a reason.

- ○ Yes (1)
- ○ No (2)

I understand that taking part in the study involves anonymously completing an online questionnaire which will include some short scenarios related to decisions regarding disciplinary actions. In the short scenarios I will be asked to select the behaviour I think would be my most likely response if the situation were real.

- ○ Yes (1)
- ○ No (2)

Use of the information in the study

I understand that information I provide will be used as part of the PhD thesis and to generate journal articles.

- ○ Yes (1)
- ○ No (2)

I understand that personal information collected about me, such as my job title, will not be shared beyond the study team.

- ○ Yes (1)
- ○ No (2)

Future use and reuse of the information by others

I understand that the survey data I provide will be used only for the purposes of this study.

- ○ Yes (1)
- ○ No (2)

I consent to taking part in this study.

- ○ Yes (1)
- ○ No (2)

Skip To: End of Survey If I consent to taking part in this study. = No

Study contact details for further information If you would like to hear about the findings at the end of the research, please email the Principal Investigator and she will provide a summary once all the information has been gathered and reviewed. **Contact details of the researcher at Kingston University London: Principal Investigator:** Kate Godfree Contact email: k1647768@kingston.ac.uk **Supervisor:** Dr Joanna Yarker Contact email: Joanna.yarker@kingston.ac.uk **If you have any questions about the research, please contact the Principal Investigator or if you would prefer to contact her supervisor please do.**

End of Block: Consent

Start of Block: Vignette 1

You are a nursing manager in the inpatient department of a UK hospital. You have been asked to participate in a panel to help determine the necessary action for employees who have recently displayed behaviour that falls short of the high standards required in this role. This employee is a staff nurse.
She has worked at the hospital for three years and has always performed moderately well in this job. However, recently her manager has received a number of complaints from patients and other members of staff regarding the level of care she is providing.

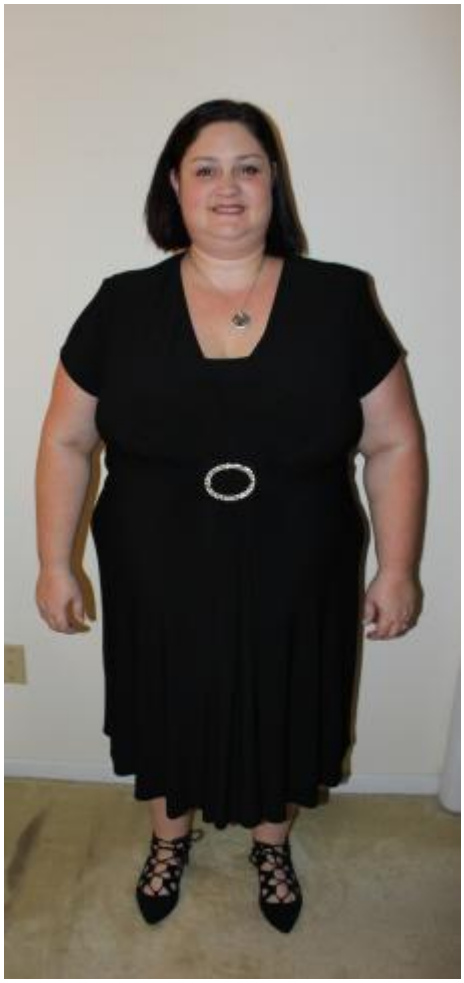
Using a scale from 1 (not at all likely) to 7 (very likely) based on the information you have been given, as the nursing manager on the panel you would:

	1 (not at all likely) (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (very likely) (7)
Withhold a pay rise (2)	○	○	○	○	○	○	○
Monitor the employee (3)	○	○	○	○	○	○	○
Provide mentoring for the employee (4)	○	○	○	○	○	○	○
Issue a verbal reprimand (5)	○	○	○	○	○	○	○
Issue a written reprimand (6)	○	○	○	○	○	○	○
Place the employee on a performance improvement plan (7)	○	○	○	○	○	○	○
Terminate employment (8)	○	○	○	○	○	○	○

End of Block: Vignette 1

Start of Block: Vignette 3

You are a nursing manager in the inpatient department of a UK hospital. You have been asked to participate in a panel to help determine the necessary action for employees who have recently displayed behaviour that falls short of the high standards required in this role. This employee is a staff nurse.
She has worked at the hospital for three years and has always performed moderately well in this job. However, recently her manager has noticed that she is often on her mobile sending personal texts and checking her social media during her shift.



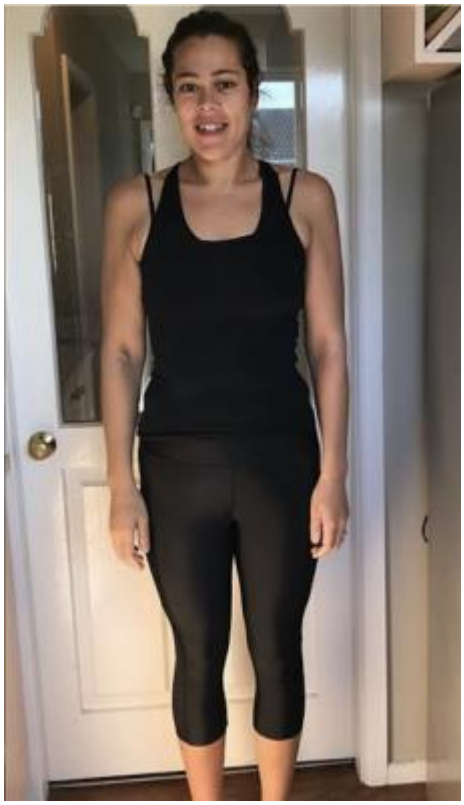
Using a scale from 1 (not at all likely) to 7 (very likely) based on the information you have been given, as the nursing manager on the panel you would:

	1 (not at all likely) (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (very likely) (7)
Withhold a pay rise (2)	○	○	○	○	○	○	○
Monitor the employee (3)	○	○	○	○	○	○	○
Provide mentoring for the employee (4)	○	○	○	○	○	○	○
Issue a verbal reprimand (5)	○	○	○	○	○	○	○
Issue a written reprimand (6)	○	○	○	○	○	○	○
Place the employee on a performance improvement plan (7)	○	○	○	○	○	○	○
Terminate employment (8)	○	○	○	○	○	○	○

End of Block: Vignette 3

Start of Block: Vignette 2

You are a nursing manager in the inpatient department of a UK hospital. You have been asked to participate in a panel to help determine the necessary action for employees who have recently displayed behaviour that falls short of the high standards required in this role.
This employee is a staff nurse.
She has worked at the hospital for three years and has always performed moderately well in this job. However, recently her manager has received a number of complaints from patients and other members of staff regarding the level of care she is providing.



Using a scale from 1 (not at all likely) to 7 (very likely) based on the information you have been given, as the nursing manager on the panel you would:

	1 (not at all likely) (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (very likely) (7)
Withhold a pay rise (2)	○	○	○	○	○	○	○
Monitor the employee (3)	○	○	○	○	○	○	○
Provide mentoring for the employee (4)	○	○	○	○	○	○	○
Issue a verbal reprimand (5)	○	○	○	○	○	○	○
Issue a written reprimand (6)	○	○	○	○	○	○	○
Place the employee on a performance improvement plan (7)	○	○	○	○	○	○	○
Terminate employment (8)	○	○	○	○	○	○	○

End of Block: Vignette 2

Start of Block: Vignette 4

You are a nursing manager in the inpatient department of a UK hospital. You have been asked to participate in a panel to help determine the necessary action for employees who have recently displayed behaviour that falls short of the high standards required in this role. This employee is a staff nurse.
She has worked at the hospital for three years and has always performed moderately well in this job. However, recently her manager has noticed that she is often on her mobile sending personal texts and checking her social media during her shift.

Using a scale from 1 (not at all likely) to 7 (very likely) based on the information you have been given, as the nursing manager on the panel you would:

	1 (not at all likely) (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (very likely) (7)
Withhold a pay rise (2)	○	○	○	○	○	○	○
Monitor the employee (3)	○	○	○	○	○	○	○
Provide mentoring for the employee (4)	○	○	○	○	○	○	○
Issue a verbal reprimand (5)	○	○	○	○	○	○	○
Issue a written reprimand (6)	○	○	○	○	○	○	○
Place the employee on a performance improvement plan (7)	○	○	○	○	○	○	○
Terminate employment (8)	○	○	○	○	○	○	○

End of Block: Vignette 4

Start of Block: Vignette 5

You are a nursing manager in the inpatient department of a UK hospital. You have been asked to participate in a panel to help determine the necessary action for employees who have recently displayed behaviour that falls short of the high standards required in this role. This employee is a staff nurse.
She has worked at the hospital for three years and has always performed moderately well in this job. However, recently her manager has noticed that she keeps taking smoking breaks in her uniform resulting in her smelling of smoke when she comes back onto the ward.

Using a scale from 1 (not at all likely) to 7 (very likely) based on the information you have been given, as the nursing manager on the panel you would:

	1 (not at all likely) (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (very likely) (7)
Withhold a pay rise (2)	○	○	○	○	○	○	○
Monitor the employee (3)	○	○	○	○	○	○	○
Provide mentoring for the employee (4)	○	○	○	○	○	○	○
Issue a verbal reprimand (5)	○	○	○	○	○	○	○
Issue a written reprimand (6)	○	○	○	○	○	○	○
Place the employee on a performance improvement plan (7)	○	○	○	○	○	○	○
Terminate employment (8)	○	○	○	○	○	○	○

End of Block: Vignette 5

Start of Block: Vignette 7

You are a nursing manager in the inpatient department of a UK hospital. You have been asked to participate in a panel to help determine the necessary action for employees who have recently displayed behaviour that falls short of the high standards required in this role.
This employee is a staff nurse.
She has worked at the hospital for three years and has always performed moderately well in this job. However, recently her manager has noticed that she is consistently arriving late for her shifts and late back from her breaks.

Using a scale from 1 (not at all likely) to 7 (very likely) based on the information you have been given, as the nursing manager on the panel you would:

	1 (not at all likely) (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (very likely) (7)
Withhold a pay rise (2)	○	○	○	○	○	○	○
Monitor the employee (3)	○	○	○	○	○	○	○
Provide mentoring for the employee (4)	○	○	○	○	○	○	○
Issue a verbal reprimand (5)	○	○	○	○	○	○	○
Issue a written reprimand (6)	○	○	○	○	○	○	○
Place the employee on a performance improvement plan (7)	○	○	○	○	○	○	○
Terminate employment (8)	○	○	○	○	○	○	○

End of Block: Vignette 7

Start of Block: Vignette 6

You are a nursing manager in the inpatient department of a UK hospital. You have been asked to participate in a panel to help determine the necessary action for employees who have recently displayed behaviour that falls short of the high standards required in this role. This employee is a staff nurse.
She has worked at the hospital for three years and has always performed moderately well in this job. However, recently her manager has noticed that she keeps taking smoking breaks in her uniform resulting in her smelling of smoke when she comes back onto the ward.

Using a scale from 1 (not at all likely) to 7 (very likely) based on the information you have been given, as the nursing manager on the panel you would:

	1 (not at all likely) (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (very likely) (7)
Withhold a pay rise (2)	○	○	○	○	○	○	○
Monitor the employee (3)	○	○	○	○	○	○	○
Provide mentoring for the employee (4)	○	○	○	○	○	○	○
Issue a verbal reprimand (5)	○	○	○	○	○	○	○
Issue a written reprimand (6)	○	○	○	○	○	○	○
Place the employee on a performance improvement plan (7)	○	○	○	○	○	○	○
Terminate employment (8)	○	○	○	○	○	○	○

End of Block: Vignette 6

Start of Block: Vignette 8

You are a nursing manager in the inpatient department of a UK hospital. You have been asked to participate in a panel to help determine the necessary action for employees who have recently displayed behaviour that falls short of the high standards required in this role. This employee is a staff nurse.
She has worked at the hospital for three years and has always performed moderately well in this job. However, recently her manager has noticed that she is consistently arriving late for her shifts and late back from her breaks.

Using a scale from 1 (not at all likely) to 7 (very likely) based on the information you have been given, as the nursing manager on the panel you would:

	1 (not at all likely) (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (very likely) (7)
Withhold a pay rise (2)	○	○	○	○	○	○	○
Monitor the employee (3)	○	○	○	○	○	○	○
Provide mentoring for the employee (4)	○	○	○	○	○	○	○
Issue a verbal reprimand (5)	○	○	○	○	○	○	○
Issue a written reprimand (6)	○	○	○	○	○	○	○
Place the employee on a performance improvement plan (7)	○	○	○	○	○	○	○
Terminate employment (8)	○	○	○	○	○	○	○

End of Block: Vignette 8

Start of Block: Research question

What do you think the research question was for this study?

_____

_____

_____

_____

____

End of Block: Research question

Start of Block: Fat phobia

Listed below are 14 pairs of adjectives sometimes used to describe **obese** or **fat** people. For each adjective pair, please select the number *closest to the adjective* that you feel best describes your feeling and beliefs.

	5	4	3	2	1	
	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Lazy	○	○	○	○	○	Industrious
No willpower	○	○	○	○	○	Has willpower
Attractive	○	○	○	○	○	Unattractive
Good self-control	○	○	○	○	○	Poor self-control
Fast	○	○	○	○	○	Slow
Having endurance	○	○	○	○	○	Having no endurance
Active	○	○	○	○	○	Inactive
Weak	○	○	○	○	○	Strong
Self-indulgent	○	○	○	○	○	Self-sacrificing
Dislikes food	○	○	○	○	○	Likes food
Shapeless	○	○	○	○	○	Shapely
Undereats	○	○	○	○	○	Overeats
Insecure	○	○	○	○	○	Secure
Low self-esteem	○	○	○	○	○	High self-esteem

End of Block: Fat phobia

Start of Block: Experience of discrimination

Have you ever been teased because of your weight?

- ○ Yes (1)
- ○ No (2)

Have you ever been treated unfairly because of your weight?

- ○ Yes (1)
- ○ No (2)

Have you ever been discriminated against because of your weight?

- ○ Yes (1)
- ○ No (2)

End of Block: Experience of discrimination

Start of Block: BAOP

Please mark each statement according to how much you agree or disagree with it. Please do not leave any blank. Use the following scale to indicate your response.

	Strongly disagree (1)	Moderately disagree (2)	Slightly disagree (3)	Slightly agree (4)	Moderately agree (5)	Strongly agree (6)
Obesity often occurs when eating is used as a form of compensation for lack of love or attention (1)	○	○	○	○	○	○
In many cases, obesity is the result of a biological disorder (2)	○	○	○	○	○	○
Obesity is usually caused by overeating (3)	○	○	○	○	○	○
Most obese people cause their problem by not getting enough exercise (4)	○	○	○	○	○	○

Please mark each statement according to how much you agree or disagree with it. Please do not leave any blank. Use the following scale to indicate your response.

	Strongly disagree (1)	Moderately disagree (2)	Slightly disagree (3)	Slightly agree (4)	Moderately agree (5)	Strongly agree (6)
Most obese people eat more than non-obese people (5)	○	○	○	○	○	○
The majority of obese people have poor eating habits that lead to their obesity (6)	○	○	○	○	○	○
Obesity is rarely caused by a lack of willpower (7)	○	○	○	○	○	○
People can be addicted to food, just as others are addicted to drugs, and these people usually become obese (8)	○	○	○	○	○	○

End of Block: BAOP

Start of Block: Demographics

To which gender do you most identify:

- ○ Male (1)
- ○ Female (2)
- ○ Other (3)
- ○ Prefer not to say (4)

Ethnicity

- ○ White British (1)
- ○ White Irish (2)
- ○ Other White (3)
- ○ White and Black Caribbean (4)
- ○ White and Black African (5)
- ○ White and Asian (6)
- ○ Other Mixed (7)
- ○ Indian (8)
- ○ Pakistani (9)
- ○ Bangladeshi (10)
- ○ Other Asian (11)
- ○ Black Caribbean (12)
- ○ Black African (13)
- ○ Other Black (14)
- ○ Chinese (15)
- ○ Another Ethnic Group (16)

Age

- ○ 18-24 (1)
- ○ 25-34 (2)
- ○ 35-44 (3)
- ○ 45-54 (4)
- ○ 55-64 (5)
- ○ Over 65 (6)

What is your weight (kg or stone - please specify the unit of measurement)

_____

What is your height (metres or feet - please specify the unit of measurement)?

_____

Which sector do you work in?

- ○ Public sector (1)
- ○ Private sector (2)
- ○ Voluntary, community and not-for-profit (3)
- ○ Other (4)

What is the highest level of education you have completed?

- ○ GCSE or equivalent (e.g. O-Level, CSE) (1)
- ○ A Levels (2)
- ○ University graduate (e.g. Bachelor's degree) (3)
- ○ Master's degree (4)
- ○ Professional or Doctorate Degree (5)
- ○ Other (6) _____

What is your job title?

_____

End of Block: Demographics

Start of Block: Block 15

Thank you so much for participating in the study. The specific aim of this study was to investigate obesity stigma in decisions relating to disciplinary actions. If you would like to hear about the findings at the end of the research, please email the Principal Investigator and she will provide a summary once all the information has been gathered and reviewed. If you would like to withdraw your data for any reason, please contact the Principal Investigator. **Contact details of the researcher at Kingston University London: Principal Investigator:** Kate Godfree Contact email: k1647768@kingston.ac.uk **Supervisor:** Dr Joanna Yarker Contact email: Joanna.yarker@kingston.ac.uk **If you have any questions about the research, please contact the Principal Investigator of if you would prefer to contact her supervisor please do.**

End of Block: Block 15

Appendix III: Consent form for study 3

Consent form

I understand that this interview is being conducted to gather data as part of a PhD thesis examining obesity discrimination at work. The project is being conducted by Kate Godfree under the supervision of Dr Rachel Lewis and Dr Joanna Yarker from Kingston University.

I consent to the interview being recorded. **Yes/no** (*delete as appropriate)

I consent, to my interview data being used as part of the PhD thesis. **Yes/no** (*delete as appropriate)

I consent to my data being retained safely for the purposes of this research and being disposed of securely. **Yes/no** (*delete as appropriate)

I understand that the data will be used as part of the PhD thesis and to generate journal articles, but the data will remain anonymous and only common themes across the interviews will be reported. I understand that I am free to withdraw from the study/withdraw my data from the study at any time without giving any reason. I understand that my data will be treated confidentially. I understand that my data will be used solely for this research purpose, will be safely stored electronically and only the researchers will have access to the data.

Name …….……Date ……..

If you are happy to consent, please complete the questions below.

Demographics

- To which gender do you most identify:
    a. Male
    b. Female
    c. Other
    d. I don't know/prefer not to say

- Ethnicity

    a. White British
    b. White Irish
    c. Other White
    d. White and Black Caribbean
    e. White and Black African
    f. White and Asian
    g. Other Mixed
    h. Indian

i. Pakistani
j. Bangladeshi
k. Other Asian
l. Black Caribbean
m. Black African
n. Other Black
o. Chinese
p. Another Ethnic Group

- Age: 18-24/25-34/35-44/45-54/55-64/Over 65

- What is your weight (KGs/Stone and Lbs)?

- What is your height (metres/feet)?

- Which sector do you work in?

  a. Public sector
  b. Private sector
  c. Voluntary, community and not-for-profit
  d. Other

  ……

- What is the highest level of education you have completed?
  a. GCSE or equivalent (e.g. O-Level, CSE)
  b. A Levels
  c. University graduate (e.g. Bachelor's degree)
  d. Master's degree
  e. Professional or Doctorate Degree
  f. Other

  ……

- On average how many hours a week do you work?

  ……

- What kind of role do you perform?
  a. Management
  b. Non-management

Appendix IV: Interview proforma for employees of diverse body sizes

Thank you so much for agreeing to take part in my research. Your views and experiences are really valuable and I'm very grateful for your time.

As you know, this research is part of my PhD in Occupational and Business Psychology. My aim is to explore obesity discrimination at work.

We're going to spend the next 30-60 minutes discussing your views and experiences. The interview will be audio recorded and transcribed. However, anything you say will remain anonymous. The data will be kept securely and will only be used for my PhD and for scientific journal articles based on my PhD thesis. Also, you are able to withdraw your data at any time.

Do you have any questions about the research?

Just for the record, you have confirmed your consent to all the questions in the consent form you received prior to this interview.

- Do you perceive yourself to be?
  - Underweight
  - Average weight
  - Overweight
  - Obese
  - Severely obese

- What do you think of when I say the term 'obesity?' or What do you associate with the term 'obesity?'

- Do you think there is an impact of obesity in the workplace?
  a. *If yes…*Can you describe that impact?
  b. *Prompts – For example, some research suggests that obesity is associated with absenteeism and presenteeism and decreased productivity.*
  c. *If no…*Why do you think that is?
  d. *Prompts – Do you think that the individual level negative health outcomes of obesity have any impact in the workplace?*

- To what extent do you think that it is the responsibility of the employer to help to address obesity?

- Does your organisation employ people of varying weights (including those who would be categorised as obese?)

- Thinking of your current organisation, or any organisation in which you've worked before, have you ever teased, treated unfairly or discriminated against someone because of their weight?
  If yes…
  a. Could you please describe the situation and provide as much detail as possible?
  b. Establish whether this was before an employee was with an organisation e.g. recruitment or whether they were in the organisation
  c. Do you think this had any impact on the organisation?
  Prompts – For example, was there any impact on their productivity or on their progression?
  d. What was your reason for teasing, treating unfairly or discriminating against someone because of their weight?

- Thinking of your current organisation, or any organisation in which you've worked before, do you think that certain stereotypes, assumptions, or impressions about individuals with obesity exist within the workplace?
  Prompts – what do you think are the stereotypes?
  In what way do you think these are present/seen/visible within the organisation?

- Thinking of your current organisation, or any organisation in which you've worked before, have you ever experienced or seen anyone being teased, treated unfairly or discriminated against because of their weight?
  If yes…
  a. Could you please describe the situation and provide as much detail as possible?
     Establish whether this was before an employee was with an organisation e.g. recruitment or whether they were in the organisation
  b. Do you think this had any impact on the organisation?
     Prompts – For example, was there any impact on your productivity or on your progression within the organisation?

- Does your organisation run diversity and inclusion training? Please could you describe the training.
  Prompts – Does this include unconscious bias training?
  Do you know if weight-based discrimination is covered within any of the diversity and inclusion training?

- Within your organisation are you aware of an organisational policy or process that addresses discrimination?
  Prompt – Is weight-based stigma/discrimination included in this?

- How do you think obesity discrimination at work can be addressed?

  Prompts – For instance, training, communication, policies? What might that look like?
  Prompts – For example, to address mental health stigma, Time to Change has focused on education around mental health

- What do you think might be a barrier to addressing obesity discrimination at work?

  Prompts – In other words, what stops obesity being challenged and addressed at work? For example, budget, sensitivity of the issue, priorities?

Talk through the next steps in the research process. And ask:

- Can you think of anyone that you know who you think might be interested in being interviewed or an organisation who might be interested in the intervention?

Thank you so much for your time today.

Appendix V: Interview proforma for Human Resources/Occupational Health employees

Protocol for interview

Thank you so much for agreeing to take part in my research. Your views and experiences are really valuable and I'm very grateful for your time.

As you know, this research is part of my PhD in Occupational and Business Psychology. My aim is to explore obesity discrimination at work.

We're going to spend the next 30-60 minutes discussing your views and experiences. The interview will be audio recorded and transcribed. However, anything you say will remain anonymous. The data will be kept securely and will only be used for my PhD and for scientific journal articles based on my PhD thesis. Also, you are able to withdraw your data at any time.

Do you have any questions about the research?

Just for the record, you have confirmed your consent to all the questions in the consent form you received prior to this interview.

- Do you perceive yourself to be?
  - Underweight
  - Average weight
  - Overweight
  - Obese
  - Severely obese

- What do you think of when I say the term 'obesity?' or What do you associate with the term 'obesity?'

- Do you think there is an impact of obesity in the workplace?
  a. *If yes…*Can you describe that impact?
  b. *Prompts – For example, some research suggests that obesity is associated with absenteeism and presenteeism and decreased productivity.*
  c. *If no…*Why do you think that is?
  d. *Prompts – Do you think that the individual level negative health outcomes of obesity have any impact in the workplace?*

- Does your organisation employ people of varying weights (including those who would be categorised as obese?)

- Thinking about HR processes within your organisation, are there any processes in which health and wellbeing, for example weight, is discussed?

- Thinking of your current organisation, or any organisation in which you've worked before, have you ever experienced or seen anyone being teased, treated unfairly or discriminated against because of their weight?
  If yes…
  a. Could you please describe the situation and provide as much detail as possible?
     Establish whether this was before an employee was with an organisation e.g. recruitment or whether they were in the organisation
  b. Do you think this had any impact on the organisation?

Prompts – For example, was there any impact on your/their productivity or on your/their progression within the organisation?

- Within your organisation are you aware of an organisational policy or process that addresses discrimination?
  Prompt – Is weight-based stigma/discrimination included in this?

- In your organisation, if an employee did experience obesity discrimination, what would be the process of addressing this?

- Does your organisation run diversity and inclusion training? Please could you describe the training.
  Prompts – Does this include unconscious bias training?
  Do you know if weight-based discrimination is covered within any of the diversity and inclusion training?

- Are you aware of the 2014 European Court of Justice ruling regarding obesity?

- How do you think obesity discrimination at work can be addressed?

  Prompts – For instance, training, communication, policies? What might that look like?
  Prompts – For example, to address mental health stigma, Time to Change has focused on education around mental health
  Prompt – whose responsibility do you think it is to address it, the employer or employee?

- What do you think might be a barrier to addressing obesity discrimination at work?

  Prompts – In other words, what stops obesity being challenged and addressed at work? For example, budget, sensitivity of the issue, priorities?

Talk through the next steps in the research process. And ask:

- Can you think of anyone that you know who you think might be interested in being interviewed or an organisation who might be interested in the intervention?

Thank you so much for your time today.

Appendix VI: Interview proforma for employees with obesity

Protocol for interview

Thank you so much for agreeing to take part in my research. Your views and experiences are really valuable and I'm very grateful for your time.

As you know, this research is part of my PhD in Occupational and Business Psychology. My aim is to explore obesity discrimination at work.

We're going to spend the next 30-60 minutes discussing your views and experiences. The interview will be audio recorded and transcribed. However, anything you say will remain anonymous. The data will be kept securely and will only be used for my PhD and for scientific journal articles based on my PhD thesis. Also, you are able to withdraw your data at any time.

Do you have any questions about the research?

Just for the record, you have confirmed your consent to all the questions in the consent form you received prior to this interview.

- How do you feel about your weight?

- Thinking of your current organisation, or any organisation in which you've worked before, have you been teased, treated unfairly or experienced discrimination, because of your weight, in a work context?

    a. Could you please describe the situation and provide as much detail as possible?
        Prompts - please can you tell me who treated you in this way? For example, a colleague, client, manager
    b. How did this make you feel?
    c. What were your thoughts about the experience?
    d. What did you do following the incident – did you do anything differently or seek support?
        Prompts - seeking social support, eating more food, using positive self-talk, coping through faith, religion or prayer
    e. How often in your lifetime do you think a situation like this has occurred?

- To what extent do you see obesity discrimination in the workplace as an issue?

- How do you think obesity discrimination at work can be addressed?

    Prompts – For instance, training, communication, policies? What might that look like?
    Prompts – For example, to address mental health stigma, Time to Change has focused on education around mental health

- What do you think might be a barrier to addressing obesity discrimination at work?

    Prompts – In other words, what stops obesity being challenged and addressed at work? For example, budget, sensitivity of the issue, priorities?
- Have you ever tried to lose weight?
    Prompts - To what extent did your work environment help or hinder you in losing weight?

Talk through the next steps in the research process. And ask:

- Can you think of anyone that you know who you think might be interested in being interviewed or an organisation who might be interested in the intervention?

Thank you so much for your time today.