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The Portrayal of Obesity in UK National Newspapers

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Abstract

Obesity is a major medical health challenge; however, the associated stigma represents a harmful and obstructive obstacle to treatment. The study purpose was to explore the portrayal of obesity in UK national newspapers. A purposive sample of 312 editions (weekday: n = 208; weekend: n = 104) from six newspapers (3 broadsheet; 3 tabloid) was analyzed. All text related to obesity was content analyzed. In total 349 articles were analyzed. Weight stigmatization and the portrayal of overweight and obesity as a moral digression were evident. Findings demonstrate that UK national newspapers attribute obesity to controllable causes. Caricatured portrayals of overweight and obesity was evident and may play a pivotal role in the formation and maintenance of anti-obesity attitudes.

Keywords: anti-obesity attitudes; weight stigmatization; overweight and obesity; newspaper portrayal

Introduction

In 2010, 26% of adults aged 16 years and over in England were classified as obese (The Health and Social Care Information Centre, 2012). Concomitantly, there is a growing body of evidence that anti-obesity attitudes are rife within today's society (e.g., Heuer, McClure, & Puhl, 2011). Additionally, anti-obesity attitudes are known to predict anti-obesity behaviours (O'Brien, Latner, Halberstadt et al., 2008) and are associated with various negative consequences for the victim such as increased likelihood of depression (e.g., Friedman, Reichmann, Costanzo et al., 2005).

It has been suggested that the media plays an instrumental role in the development of anti-obesity attitudes and provides a stimulus for weight stigmatization through shaping social consensus (e.g., Thompson, Herbozo, Himes, & Yamamiya, 2005). To date the majority of research examining obesity in the media has focused on entertainment media, including television and magazine portrayals (e.g., Greenberg, Eastin, Hofschire, Lachlan, & Brownell, 2003; Latner, Rosewell, & Simmonds, 2007). As might be expected obese people are often stigmatized, for example Greenberg et al. (2003) reported that obese television characters had fewer romantic relationships and friendship interactions and were less likely than non-obese characters to have positive interactions with others. Moreover, news stories are particularly influential and insidious given that their content is readily available through various sources and is rarely challenged (Heuer et al., 2011).

Many media reports are presented in a “negative tone” and suggest obese people require “remedial action” (Tischner and Malson, 2008), with the number of media articles on obesity observed to have increased (Saguy & Almling, 2008). This is concerning as it is widely acknowledged that the media is a potent force and when used inappropriately can have detrimental consequences, leading to misconceptions and limited public knowledge (Kleck, 1996; Larsson et al., 2003; Roberts & Doobs, 1990). The media play an important

role in the formation and maintenance of weight stigmatization, shaping the social consensus. According to Newspaper Society figures (2008), 80.4% of British adults read regional newspapers and 61% read national newspapers yet research examining the portrayal of obesity in newspapers is limited to only 6 studies. These studies have examined tabloid and broadsheet portrayals of obesity, pictorial depictions of obese and overweight people, and the types of solutions that to impact the obesity epidemic.

As might be anticipated, German tabloid newspapers provided less comprehensive and correct information on obesity than national and local daily newspapers (Hilbert & Reid, 2009). They also used personalized descriptive information, referring to extreme features of the condition, whereas national newspaper coverage referred more to internal attributions and controllable causes of obesity. Major newspapers from the USA, UK and Canada were found to portray lifestyle as the main cause of obesity, suggesting roles for the government, industry and the individual in addressing the epidemic (Ries, Rachul, & Caulfield, 2010). Hilton, Patterson and Teyhan (2012) also examined UK newspaper portrayal of obesity, over a 15 year period from 1996 to 2010. They identified that overtime increasing reports relating to obesity was evident, that reports were more likely to be focused on childhood obesity since 2001, that portrayals were more likely to report on causal than non-causal factors and that a high proportion would comment on solutions for obesity. This study provides useful descriptive information to quantify how the coverage of obesity has changed overtime, rather than providing detailed evidence of the portrayal of obesity in UK national newspapers.

Sandberg (2007) sampled four Swedish newspapers published between 1997 and 2001. Sandberg reported that when newspapers placed an emphasis on appearance, the seriousness of the condition was underestimated, obesity was portrayed predominantly as a female problem, and there was evidence of obesity stigmatization. An interesting observation was made by Lawrence (2004) that the number of articles appearing on page 1 of the New

York Times relating to obesity increased between 1985 and 2003, with a greater number of articles reporting on behavioural (e.g., lack of exercise) and systematic (e.g., food portion sizes) causes of obesity compared with biological causes (e.g., genetic predisposition). This finding may explain why previous research (e.g., Flint, Hudson & Lavalley, 2013) findings demonstrate beliefs that obesity is perceived as controllable.

Finally, Heuer et al. (2011) examined the impact of pictures included in newspaper articles. They observed that 72% of images of overweight and obese people used to accompany online news stories about obesity depicted the individual in a stigmatizing manner. For instance, compared with non-overweight individuals, overweight and obese people were more likely to have their heads cut out of images or be pictured wearing inappropriately fitting clothes. This study provides useful findings to evidence how overweight and obese people are stigmatized in the images used by newspapers when reporting on obesity.

This small body of research clearly requires expansion and limitations that need to be addressed, namely a lack of methodological rigour and limited examination of UK newspapers. Focusing specifically on the UK media is important as anti-obesity attitudes are present in the UK and a high proportion of the UK population read newspapers on a daily basis. Furthermore, evidence to demonstrate the portrayal of obesity is required that goes beyond previous descriptions to provide in-depth evidence of how UK national newspapers portrayal of obesity may inform the formation and maintenance of stigmatizing attitudes towards overweight and obese people. Thus, this may be an initial step in understanding why anti-obesity attitudes are evident as the media represents a potential source for the formation of these attitudes. Subsequently understanding the underpinning of anti-obesity attitudes observed in previous research (e.g., Swift, Choi, Puhl, Glazebrook, 2013) has implications for future interventions to address these attitudes. Given that the current evidence base is limited

in size, geographical shape and methodological rigour, this research examined how obesity is portrayed in UK national newspapers to address the following questions:

1. Is there evidence of anti-obesity attitudes and weight stigmatization in UK national newspaper portrayals of obesity?
2. Do tabloid and broadsheet newspapers portray obesity differently?

Method

Sample

The purposive sample comprised 312 (weekday: n = 208; weekend: n = 104) editions from 6 newspapers published between July 2008 and July 2009. This included two weekday broadsheet and tabloid newspapers and one weekend broadsheet and tabloid newspaper with the highest readership according to distribution figures (The British Media Industry, 2008). The weekday newspapers (readership in millions) were *The Sun* (7.8), *Daily Mail* (4.8), *The Daily Telegraph* (1.8) and *The Times* (1.8) and the weekend newspapers were *The News of the World* (7.8) and *The Sunday Times* (3.1). *The Sun*, *Daily Mail* and *News of the World* are tabloid newspapers and *The Daily Telegraph*, *The Times* and the *Sunday Times* are broadsheet newspapers. Of the 312 editions, 349 articles were identified by the first author who read through all papers to identify any content that directly or indirectly related to overweight and obesity or that made reference to associated terms, such as stereotypes associated with being fat and weight loss interventions for obese people.

Data Analysis

All text (titles, article main text, advertisements, letters) related to overweight and obesity was content analyzed for underlying themes and patterns. Data from all newspapers was analyzed as a whole (broadsheet and tabloid articles combined) and then separately to allow comparisons. Summative analysis was used to quantify the number of references to obesity and overweight and inductive content analysis was used to identify themes derived

directly from the text (Hsieh & Shannon, 2005). A consistent thread in the varied definitions of content analysis refers to a systematic technique to handle message content, observed behavior and to comprehend communication (Budd, Thorp, & Donohew, 1967) and the latter underpins the analysis used here. To construct a hierarchical model of the data, initial analysis involved assigning meaning labels to sentences to produce raw data themes. These were then grouped into categories representing patterns that emerged in the data to produce 1st and 2nd order themes and general dimensions (see Figure 1).

To ensure trustworthiness of the analysis, three researchers analyzed 10% of the data from each newspaper to develop a triangular consensus on the identified themes. Independent analysis reduced the potential of inter-rater effects on the reliability of the analysis (Tomlinson & Wright, 2004; Weigle, 1998). Themes that were identified by only one or two of the researchers were discussed to confirm if they were evident in the data, before a final agreement was reached on meaning labels assigned to the data and themes. Following this, the primary researcher reviewed all data to ensure the remainder was in line with the final analysis produced by triangular consensus. Two of the researchers then discussed and agreed on the structure and relatedness of themes to construct the hierarchical model (see Figure 1). Independently, 34% of themes were identified by all three reviewers, 55% by two reviewers and 11% by one reviewer. Following discussion of labels assigned to the data by one or two of the analysts, a final consensus of 95% was agreed.

Results

Overview of Themes

Figure 1 illustrates 1st and 2nd order themes and general dimensions combined for both types of newspaper and weekday and weekend editions. The 349 articles analyzed included 84 from the broadsheet newspapers and 264 from the tabloid newspapers, indicating greater coverage of obesity in the tabloid newspapers over the data collection period. All second

order themes (personal control, interventions, psychosocial effects of obesity, perceptions of obesity, prevalence) appeared more frequently in tabloid compared with broadsheet newspapers (see Figure 1) and the discussion below represents themes identified in broadsheet and tabloid newspapers. Table 1 provides an example of the quotes that emerged in the 2nd order themes of the analysis. The following paragraphs describe the 2nd order themes providing examples to evidence their presence in UK national newspaper portrayal of obesity.

[Insert Figure 1 here]

Personal Control: Both broadsheet and tabloid newspapers place substantially more emphasis on controllable causes of obesity, with the focus on the effects of high energy intake and low energy expenditure. Articles suggest that obesity is a result of life choices and taking responsibility for those choices will determine whether someone becomes overweight or obese. They place greater emphasis on intrapersonal level solutions that are within an individual's control (e.g., taking more physical activity) than higher level solutions (e.g., Government initiatives to change behaviour). Additionally, newspapers present obesity as a controllable condition (98% of articles), with little attention paid to genetic influence (2% of articles). Furthermore, uncontrollable causes of obesity were mostly discussed alongside controllable causes.

Thus obesity is presented as a problem for the individual and responsibility and blame lie with those who become overweight and obese. For example, an article in the *Daily Mail* reads, “*don't eat between meals, leave out food that's obviously full of fat and sugar and get half an hour's walking exercise a day. That's all you need to do*” (MacRae, 2009, p. 11). This article also, like many others, promotes the message that combating obesity is simple, which serves to reinforce a belief that obesity is controllable. Similarly, articles about childhood obesity tended to blame significant others such as parents, for example an article in *The Sun*

about an obese girl reports “*Georgia’s mother says that she is to blame and that when her husband died they would comfort eat together*” (Hendry, 2008, p. 4).

David Cameron comments in *The Times* that “*some people who are poor, fat or addicted to alcohol or drugs have only themselves to blame*” and that “*said that society had been too sensitive in failing to judge the behaviour of others as good or bad, right or wrong, and it was time for him to speak out against “moral neutrality”*” (Elliot, Riddoll, & Coates, 2008, p. 1). In doing so he not only attributes blame to the individual but also associates obesity with social deviances (alcohol and drug use), moral transgression and poverty. David Cameron reinforces the view that obesity is controllable by suggesting the condition is caused by excessive consumption and inactivity (see table 1).

Interventions: Interventions for overweight and obesity were discussed in articles in both broadsheet and tabloid newspapers, with the focus on combating internal causes of obesity such as consuming a healthy diet and offering advice from famous individuals who are reported to have a good shape. Physical activity is promoted to combat obesity, for instance an article in the *Daily Mail* reports that the best way of getting rid of the “*muffin top*” (“*excess fat situated all around the abdominal area of the body*”) is by aerobic exercise and that anything that gets “*heart rate up and your body moving -- will burn fat*” (Holiday, 2009, p. 44). Improving nutritional intake and increasing physical activity were two solutions for weight loss that were often offered in combination.

Other strategies identified for combating obesity were the use of drugs and surgery that were presented as ‘wonder cures’ or ‘quick fixes’. These articles suggest that excess body fat can be treated in a short amount of time with a number of potential implications. First, they inform the reader that weight gain and loss can be easily controlled, reinforcing messages of controllability. Second, they raise possibly unrealistic expectations about weight loss which, if not fulfilled, may detrimentally affect psychological wellbeing.

Psychosocial Effects of Obesity: Newspaper articles frequently detailed how obesity affects an individual's ability to live a 'normal life', implying that those who suffer from the condition are estranged from mainstream society. One such article in *The Sunday Times* reports that an obese patient could not fit into a hospital scanner, with one solution being to use a horse scanner (Coyle, 2009). This article, like others, goes some way to dehumanizing obese people and reflects a perception that obese people are abnormal.

A number of articles about currently or previously obese individuals detail their emotional experiences of being obese. For example in *The Sun*, Georgina Davis was dubbed "*BRITAIN'S FATTEST TEEN: 33st AT 15*" (Hendry, 2008, p. 1). The article discusses how she became distressed, "*when I look in the mirror I feel so sad and go to my room and cry*" and terrified after "*Doctors have told me I could drop dead at any moment*" (Hendry, 2008, p. 4). Like many others, this article comments on how the girl suffered from bullying (see Table 1).

Perceptions of Obesity: Stigmatizing portrayals of obesity including fat jokes and discrimination were evident throughout newspaper articles that encourage thin idealization (Himes & Thompson, 2007). *The Sunday Times* included a particularly negative portrayal of obesity reflecting a belief that obesity is associated with lower socio-economic class (Marrine, 2008; see Table 1). Stereotypical portrayals of the overweight and obese were a common occurrence in newspaper articles, such as that offered by Liddle (2009) in *The Sunday Times* in response to the UK Government initiative 'Change4Life' (see Table 1). The comment "*hospitals are full of obese chavs*" has no foundation given that obesity has become widespread, affecting individuals from all backgrounds and sectors within society.

Other articles illustrate the widespread dehumanization of obese people, for example in *The Times*, Marrine (2008) comments after recently visiting a supermarket, how she was

“astonished by the number of horribly obese shoppers waddling around the aisles with their elephantine children” (p. 16).

Throughout the newspapers, a label used in numerous articles is *“fatty”* or *“fatties”* (e.g., Ferrier, 2009). For example in *The Sunday Times*, one headline reports that Health Secretary Alan Johnson, was apparently inspired to lose weight by the television show ‘Strictly Come Dancing’, stating *“Minister tells fatties to follow the dancing pig”* and *“Fatties told to dance”* (Oliver, 2009, p. 1). Referring to the overweight and obese as *“fatties”* further reinforces the message that this is an abnormal characteristic and that those with excess body fat are separate and defined by their appearance. A number of headlines also play on words to present obesity in a derogatory or humorous manner; for example, in relation to the cost of obesity a headline in *The Times* reads *“bill for obese patients balloons”* (Rose, 2009, p. 9) and in *The Sun* *“ON BENEFATS”* (Wilson, 2009, p. 28).

Prevalence: Newspapers also consistently reinforced obesity as a threat to the general population, framing the condition in alarmist terms, thus increasing a sense of fear. For example in an article in *The Sun*, after presents information about the prevalence of obesity Hendry (2008) goes on to comment that *“those with a BMI over 45 can expect to live 20 years less than slimmer people and higher figures mean even shorter lifespans. At an age when most teenagers have everything to look forward to, she faces a short and miserable life”* (p. 5).

Of the 51 articles referring to the prevalence of obesity, 30 references were made to childhood obesity, 7 to adult obesity and 18 did not distinguish between the two. For example, *“A QUARTER of five-year-olds and A THIRD of 10-year-olds are overweight or obese”* (Hendry, 2008, p. 5). The disproportionate attention paid to the prevalence of childhood obesity reflects concerns about rapid increases in this phenomenon. Whilst all newspapers sampled reported on the increasing prevalence of obesity, many also quantify the

economic effect of obesity on the UK and to the non-overweight or obese. The expressions used in this context may contribute to the belief that obese people are abnormal, where newspapers purposefully employ weight related terms (e.g., “balloon”, “weighed in” and “hefty”).

Broadsheet and tabloid comparison: Whilst the results above demonstrate the portrayal of both broadsheet and tabloid newspaper articles, there were similarities and differences between the portrayals of the two types of newspaper. In relation to personal control, both broadsheet and tabloid newspapers mainly attribute the causes of obesity to controllable causes compared with uncontrollable causes. However, there was evidence that broadsheets made more reference to the moralising of obesity than tabloid newspapers. This is illustrated in David Cameron’s comments in *The Times* quoted earlier and as a result, broadsheet newspaper readers may be more likely to perceive obese people as morally deficient.

Although, both broadsheet and tabloid newspapers include information about interventions for obesity with a focus on modifying food consumption and physical activity, tabloid newspapers, discuss a wider range of interventions compared with broadsheet newspapers. Examples include pharmaceutical products such as Zotrim (Daily Mail, 2008), AICAR (The Sun, 2008) and Alli (MacRae, 2009; Daily Mail); and surgery, for example an article in the News of the World reads “*our unforgiving photo was enough to prompt mum-of-four Fern to take drastic measures - and she **SECRETLY** had a gastric-band operation*” (Aye Maung, 2008, p. 12). Tabloid newspapers also report more on the weight loss strategies that celebrities use, for example an article in *The Sun* reports that Joan Collins commented that “*if every time you crave something sweet you eat an apple or a piece of broccoli, after a few days your appetite will have adjusted and your craving will stop*” (Waterman & Davies, 2008, p. 34).

A clear difference was evident between broadsheet and tabloid newspapers in relation to the psychosocial effects of obesity theme, where tabloid newspapers reported more on the negative consequences of overweight and obesity such as bullying at school (Hendry, 2008: *The Sun*) and at work (Laing, 2008: *News of the World*). Tabloid newspaper articles were very descriptive, providing greater amounts of information and derogatory labels, for example an article in *The Sun* includes some of the names an obese girl was called at school when bullied such as “*fatty*” and “*tub of lard*” (Hendry, 2008, p. 5). Similarly, in the *News of the World* an article provides information about how “*desperate*” a girl was to try sex, how prior to losing weight she went on a blind date hoping to lose her virginity, and was told “*fat chance, love!*” (Acton, 2009, p. 31).

Both broadsheet and tabloid newspapers convey negative perceptions of obesity, however subtle differences are evident. Broadsheet newspapers include information relating to the moralising of overweight and obesity, associating the condition with behaviours deemed to be socially deviant. There are also derogatory comments made towards obese people by newspaper writers such as those quoted above by Marrine (2008). In contrast, tabloid newspapers include information about negative perceptions and derogatory comments made by others towards obese people, for example in the *News of the World*, Galddis and Wooton (2009) report that Kerry Katona’s husband has commented “*She’s turning into a lard****. I’m not going to bed with that*” (p. 7).

Reporting on the prevalence of overweight and obesity is very similar in broadsheet and tabloid newspapers where both prevalence statistics, projections for the future and the potential consequences of not intervening are presented. For example, in *The Times*, Rose (2009) reports that “*90 per cent of today’s children could be overweight or obese by 2050, leaving them at risk from serious illness such as heart disease or diabetes*” (p. 25). Tabloid articles do however use more alarmist terminology than broadsheet articles. For example in

The Sun, McEntee (2008) reports that “*two in every three of us are obese – pigging out on a scale-busting diet of chips, pizzas and sweets*” (p. 26) and in the Daily Mail, MacRae (2008) reports that alongside obesity “*our growing appetite for fast food and sedentary lifestyles are also fuelling a diabetes time bomb, with more than four million Britons expected to be sufferers by 2025*” (p. 16). As noted above, there is limited portrayal of genetic influences in both broadsheet and tabloid newspapers, thus conclusions about differences in portrayals cannot be made.

Discussion

There are three key findings from the present study. First, this study has provided evidence that overweight and obese people are stigmatized in UK national newspapers as described in the perceptions of obesity theme. Moreover, these reports do not condemn or question this stigmatization, which may inadvertently promote further stigmatizing attitudes and behaviors to the reader. Second, there is clear evidence that both broadsheet and tabloid newspapers predominantly promote controllable causes of obesity with a lack of reporting on uncontrollable causes as described in the personal control theme. Third, there are clear differences in the portrayals of obesity in broadsheet and tabloid newspapers, which may have implications for the messages readers receive and consequently the attitudes and beliefs developed about overweight and obese people.

There is unequivocal evidence of anti-obesity attitudes and weight stigmatization in UK national newspapers. A number of articles discuss negative behaviours such as bullying of overweight and obese people that stem from anti-obesity attitudes and weight stigmatization. However, this commentary includes no attempt to condemn such behaviours to suggest to the reader that this type of behaviour is unacceptable. What is more surprising and deplorable is that in some cases newspapers also engage in obesity stigmatization via fat jokes, supporting observations from other forms of media (Puhl & Brownell, 2001). There is

currently no legislation in the UK in relation to discrimination towards obese people, unlike race and sex (The Equality Act, 2010). However, the Society of Professional Journalists (2010) advocates the use of non-stereotypical portrayal suggesting that journalists should “*avoid stereotyping by race, gender, age, religion, ethnicity, geography, sexual orientation, disability, physical appearance or social status*” (p. 1). The present study provides evidence that UK national newspapers do not adhere to this ethical standard but may even actively promote prejudice and discrimination towards overweight and obese people. Addressing this treatment and portrayal of obesity UK newspapers might contribute to reducing the anti-obesity attitudes and weight stigmatization evident within the population (Swift et al., 2013). It is of course impossible to be certain that the media has had an effect on perceptions of obesity, but future research should tease out whether a causal relationship exists between anti-obesity attitudes and media portrayals of obesity.

Both broadsheet and tabloid newspapers promote the message that obesity is controllable, offering uncontrollable explanations (e.g., genetic predisposition, biological components of weight) on only a few occasions. Whilst controllable factors do cause obesity (e.g., Garcia, Sunil, & Hinojosa, 2012; Smith, McNaughton, Gall, Blizzard, Dwyer, & Venn, 2011), unassailable evidence exists to demonstrate that body weight is predominantly determined by genetic factors (Barsh, Farooqi, & O’Rahilly, 2000; Froguel & Boutin, 2001). Thus greater acknowledgement of the role uncontrollable factors play in the incidence of obesity is needed to present a more accurate picture to the reader of UK national newspapers.

The link between controllability beliefs about obesity and anti-obesity attitudes has been suggested previously (e.g., Puhl & Brownell, 2003), with tentative proposals of the source of these beliefs and attitudes, such as the media. The present research offers original findings by demonstrating that controllability beliefs and obesity stigmatization are indeed communicated in UK newspaper portrayals. Attribution of obesity to controllable factors

such as physical activity level (e.g., Gutin, 2011) and a lack of information about uncontrollable factors such as the obesity gene (e.g., Rankinen, Zuberi, Chagnon et al., 2006), demonstrate that the media does not appear to present an accurate reflection of knowledge gained from scientific inquiry. In the context of previous evidence (e.g., Puhl et al., 2005) that beliefs about controllability are related to greater anti-obesity attitudes these are important findings. In addition, Gusfield (1981) suggests that the framing of fatness as the result of unhealthy choices (e.g., poor diet and inactivity) is likely to cast overweight and obese people as morally deviant and in extreme cases as “villains”. Placing such emphasis on obesity as a controllable condition is likely to influence the perceptions readers form about the condition and those who suffer from it resulting in increased anti-obesity attitudes.

These findings support those from the only other examination of UK newspaper portrayal of obesity which identified that obesity was framed as a lifestyle problem (Ries et al., 2010). However, the present study findings conflict with those reported by Ries et al. (2010) that obesity is presented in newspapers as a societal problem that needs to be addressed by the Government, industry and society. To our knowledge, this is the first study that has systematically and rigorously examined a representative sample of UK newspaper articles in relation to obesity, as the majority of previous research has focused on television or magazine portrayals (e.g., Greenberg et al., 2003). With the vast number of the population exposed to these newspaper portrayals on a daily basis, this research makes an initial, but significant contribution and its findings highlight the need to further develop this line of research with a view to modifying newspaper portrayal of obesity.

From a theoretical perspective the current study provides unequivocal evidence that UK national newspapers portray obesity primarily as a controllable condition and that it is easily modified. Given the potential impact of media sources and large proportions of the population are exposed to national newspapers, it is likely that the reader will subsequently

internalize and endorse the view that obesity is controllable. This may therefore be detrimental, given that previous research suggests that those who believe obesity is controllable are likely to hold greater anti-obesity attitudes. Additionally, there is clear evidence of promotion of Protestant Ethic values in newspaper portrayals of obesity, presenting obese people as immoral, slothful and gluttonous, and expressing their view that obesity is akin to deviant and immoral behaviors. Thus, readers may internalize these values and subsequently advocate them as personal beliefs. Comments are frequently made that reinforce the Protestant Ethic belief that success results from hard work and negative attributes result from the individual's moral failings of self-indulgence and lack of self-discipline. This belief system leads to the stigmatization of individuals such as obese people, who are believed to have morally transgressed. Furthermore, the underpinning message of the Protestant Ethic is supported and transmitted in articles such as those that highlight moral failings and personal responsibility as chief causes of obesity. This is in line with Hoverd and Sibley (2007) who reported that individuals implicitly and explicitly perceive unhealthy behaviors such as overeating and physical inactivity as more sinful than healthy behaviors such as consuming a healthy diet and taking regular exercise. Thus, the initial foundations of anti-obesity attitudes, proposed to result from perceptions of obesity as immoral (Crandall, 1994), are further endorsed by widespread comments in the media.

Additionally, the causes of and solutions for obesity are presented on an intrapersonal level, where individuals are considered personally responsible for their condition and for modifying "sinful" behaviors (i.e., low activity, high food consumption) to solve the obesity 'problem'. By overemphasizing the intrapersonal nature of solutions, newspaper portrayals of obesity may lead obese individuals to internalize guilt and blame for the condition (Nyblade et al., 2003).

A final concern that has emerged from this study is the unrepresentative portrayal of overweight and obesity in newspaper portrayal. For example, newspapers included information about interventions for obesity. However, these articles lacked the sufficient detail required to fully educate the reader about these interventions, for example many did not inform the reader of the possible side effects of interventions. Roberts and Flint (2011) highlight concerns regarding the promotion of interventions for overweight and obesity that are illustrated in these articles such as the lack of information about potential side effects and focusing on weight as opposed to excess fat that may lead to a preoccupation with losing weight and not fat. Additionally, whilst controllable factors have been linked with obesity, research also demonstrates the influence of genetics (e.g., Carnell, Haworth, Plomin, & Wardle, 2008), which as reported earlier, was an omission of the majority articles included in this analysis. Robust evidence exists that BMI and abdominal adiposity are influenced by genetic predisposition (Wardle, Carnell, Haworth, & Plomin, 2008).

The main implication of the findings is that if media messages such as those discussed above are internalized and endorsed as personal beliefs, this may promote anti-obesity attitudes and beliefs. The media provides a very powerful vehicle to project perceptions of obesity, which may lead to the internalization of these messages. Newspaper portrayals of obesity as controllable, of anti-obesity attitudes and weight stigmatization do present a plausible contributor to the anti-obesity attitudes reported in previous research (e.g., Puhl & Brownell, 2006), given the educational and informational role of the media. Moreover, Townsend (2009) suggests that moral judgments may explain the development and maintenance of anti-obesity attitudes to which the media seemingly may contribute.

Additionally, the emphasis of newspaper portrayals of obesity could be shifted from personal responsibility for the incidence, prevalence and tackling of obesity to highlight the roles of agencies within society that have been reported to play a major role in the obesity

epidemic, such as transport systems (Ludwig & Pollack, 2009) and fast food chains (Currie, Della Vigna, Moretti, & Pathania, 2009). Moreover, the King's Fund Health Development Agency (2004) suggests that those from lower socio-economic backgrounds may perceive interventions focusing on personal responsibility as reflective of a nanny state, with adverse effects on their behavior, such as reactive healthy practices. This further exacerbates the problem in this group.

A limitation of the present study was that three months into the data collection, an internet database was used to analyze the newspapers, whereas previously hard copies were employed. The online format presented each article on one page and did not replicate the layout of the hard copies. This did not allow for examination of the amount of space allocated to coverage of obesity related issues and their location in the newspaper, which was an original intention of the study. Another limitation is that the primary researcher's existing knowledge may have affected the inductive analysis process, however, the final analysis represents three researchers' independent analyses thus reducing this potential bias.

This study has provided novel contributions by identifying that anti-obesity attitudes and weight stigmatization are evident in UK national newspapers. This study also demonstrates that UK national newspapers report predominantly on the controllable causes of obesity with little inclusion of information about uncontrollable causes, that interventions are portrayed as 'quick fixes' and are likely to promote unrealistic expectations in relation to weight loss, and that there are detailed descriptions of the psychosocial effects of obesity. The current study also demonstrates that there are distinct differences between broadsheet and tabloid newspaper portrayals of overweight and obesity, which although previously suggested has not been demonstrated in research. For example, the current study presents findings that extend previous examinations of UK newspaper (e.g., Hilton et al., 2012) that quantify changes in the coverage of obesity, by providing detailed evidence and analysis of

how obesity is portrayed to the UK Public. This novel contribution that the current study provides may explain the formation and maintenance of anti-obesity attitudes evidenced in previous research (e.g., Flint et al., 2013). This was achieved through a rigorous, in-depth analysis of UK national newspapers over an extended period of time. Findings of this research could inform the portrayal of obesity, to encourage newspapers and journalists to adhere to the ethical codes of conduct identified in The Equality Act (2010) and by the Society of Professional Journalists (2010).

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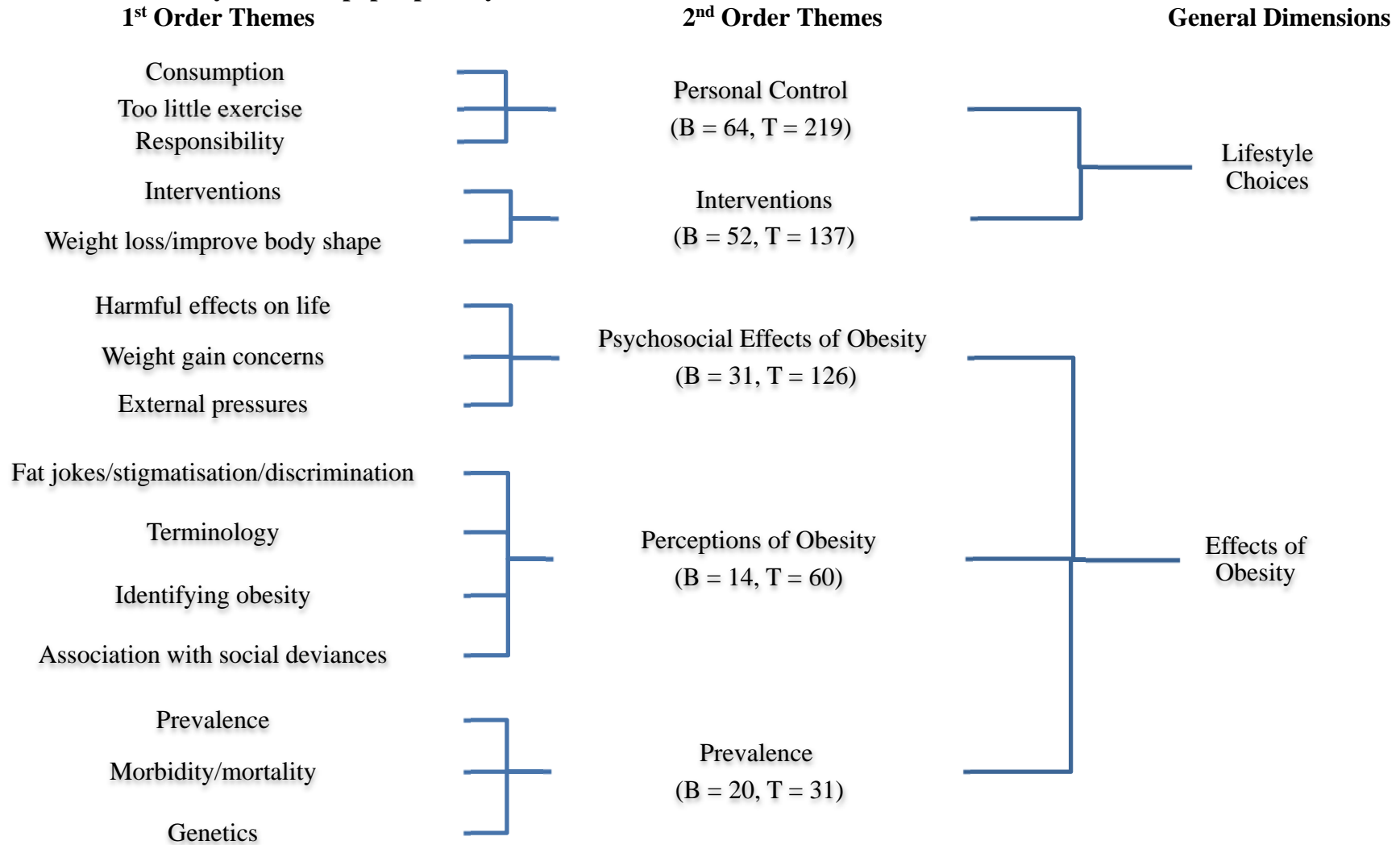
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Figure 1: Content analysis of newspaper portrayal



* Frequency of 2nd order themes in broadsheet (B) and tabloid (T) newspaper articles

Table 1: Supporting quotations for 2nd order themes

2 nd order themes	Example quotations
Personal Control	<p>Controllable explanations for obesity: David Cameron comments “<i>we talk about people being ‘at risk of obesity’ instead of talking about people who eat too much and take too little exercise</i>” and that obesity is a “<i>purely external event like a plague or bad weather</i>” (Elliot et al., 2008, p. 1; The Times).</p>
Interventions	<p>Drugs and surgery as 'wonder cures': “THE DOCTOR’S DIET TO LOSE A STONE IN 10 DAYS” (Spira, 2008, p. 52; Daily Mail). Spira is a “<i>slimming expert who has worked with overweight and obese people for the last 30 years</i>” and has “<i>worked with supermodels, pop stars, celebrities who have all used this method, such as Kylie and Jennifer Lopez</i>” (p. 52).</p>
Psychosocial effects of obesity	<p>Obesity is sexually unattractive and is likely to affect romantic relationships: “<i>She’s turned into a lard ****. I’m not going to bed with that</i>” (Gladdis & Wooton, 2009, p. 7; News of the World). “<i>a DESPERATE virgin weighing 22 STONE shed more than half her bodyweight on a mammoth diet –AND lost her cherry in the bargain</i>” (Acton, 2009, p. 31; News of the World).</p>
Perceptions of obesity	<p>Obesity is associated with lower socio-economic class: “<i>the only reason for interfering with what fat people eat is how much it costs the rest of us, perhaps we should leave them alone. It’s well known that obesity (and fatness) are associated with poor education, poor housing, poor employment or none, low expectations and all the rest... you never see such bloated people and trolleys in smart supermarkets in rich areas. These days you can easily tell people’s precise socioeconomic bracket and body weight by the content of their trolleys</i>” (Marrine, 2008, p. 16; The Sunday Times).</p>
Prevalence	<p>Obesity is a threat: “<i>if we do nothing, 90 per cent of today’s children could be overweight or obese by 2050, leaving them at risk from serious illness such as heart disease or diabetes</i>” (Rose, 2008, p. 25; The Times).</p>