Short Communication

Stigmatizing images in the media – a cross-national survey

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Summary

Images accompanying articles on obesity in the media may contribute to a stigmatizing narrative of personal blame for the condition. We report a pilot study of online newspapers in 15 countries to determine the use of positive and negative imagery used to accompany articles on obesity. We undertook a visual content analysis of images accompanying articles on obesity from the top five newspapers of each country. We then ranked countries according to the ratio of positive to negative imagery used. A total of 195 images were analysed. The majority of images scored negatively (i.e. were likely to be stigmatizing). Media in Hong Kong, South Africa, Italy and Morocco had the highest prevalence of stigmatizing imagery, whereas Japan and New Zealand displayed the lowest. Public media in all the countries surveyed show stigmatizing imagery associated with obesity, but there was variability between countries. As the global prevalence of obesity rises and advocacy groups raise awareness of stigma, we hope for an improvement in the images used in the media.

Keywords: Image, media, stigma, weight bias.

Introduction

Obesity has become a worldwide public concern and has gained widespread and recurrent attention in the media (1). Despite clear evidence of the significant contribution of environmental drivers, the discourse about obesity tends to portray the issue largely as a matter of 'personal responsibility' to be tackled through 'lifestyle choices' or dubious non-clinical remedies, reinforced through the language and imagery used in media articles. A number of studies have examined the presentation of obesity in mainstream media, noting how people with obesity are described in objectified, disrespectful terms and shown as lazy, uncaring of their appearance, unhealthy and unattractive (2, 3). This social narrative affects patients seeking treatment and the health professionals providing it. Thomas *et al.* (4, 5) describe patients' emotional difficulties due to stigma being a higher priority to them than their weight when seeking medical care for obesity, and that this stigma also contributed to physicians feeling 'uncomfortable' broaching the topic of their weight.

Images that accompany media articles play a substantial function in conveying social perceptions, especially in health and social issues. McClure *et al.* (6) have shown that exposure to negative and unflattering photographs of people with obesity increased levels of weight bias, in contrast to those who were exposed to more positive portrayals. In so far as the mass media plays a role in defining social discourse, they influence political and public priorities for policymaking (7). In this short communication, we report a survey of media in 15 countries to determine the use of positive and negative imagery used to accompany articles on obesity.

Methods

We examined articles in online newspapers in 15 countries, selected in order to ensure a geographical spread across major regions, as well as to capture large population sizes

(see Table 2). An algorithm that analyses web metrics from four independent search engines, including web traffic, traffic sources and top pages, was used to identify the five newspapers with the highest web ranking within each country (8). We excluded newspapers that did not include images along with their archived news stories and included the next ranked newspaper. A full list of included newspapers can be seen in Table S1, Supporting Information. We selected images by searching the websites of each identified newspaper with the search terms 'obesity' and 'overweight' in each relevant language. Searches were undertaken between November 2017 and June 2018, and tracked newspapers retrospectively for a maximum of 24 months.

All retrieved articles were screened and included if (i) the primary theme of the article was obesity and (ii) the article contained an image related to the topic.

Measurement

A content analysis was carried out using a coding tool adapted from Heuer *et al.* (9) to assess specified attributes on how people with obesity are portrayed in the media. We added further attributes to this tool in order to consider images that did not contain people. All attributes were coded as 'positive' or 'negative' as listed in Table 1.

Analysis

Images were coded for each attribute with a 0 or 1. For example, the attribute of 'Exercising' was coded as 1 if the image contained a person exercising, and 0 if the image did not. A total for the positive points and for the negative points was obtained for each image, allowing each image

to be categorized as Positive if the image contained more positive than negative points, Neutral if the points were equal, and Negative if the image contained more negative than positive points. The number of images in each of these three categories was combined for a given country to give a single score for that country on the use of stigmatizing imagery (e.g. four Negative images and nine Positive images would give a score of +5).

Results

Up to four articles that met the inclusion criteria were selected from each online newspaper source in reverse chronological order, until a total of 13 articles per country were retrieved. A total of 195 images were analysed. A list of newspapers and number of articles retrieved per source are given in Table S1. The most prevalent topics were the obesity epidemic (19%); childhood obesity and/or rising rates of this condition (14%); and consequences of obesity such as health risks (13%). Of the 195 images, 122 (63%) showed people with overweight or obesity and 26 (13%) people with normal weight. Males (43%) were portrayed more frequently than females (27%), and adults (52%) were portrayed more frequently than children (23%). These findings are consistent with previous studies from the USA and United Kingdom (10, 11).

Stigmatizing portrayals

The majority of images used in each country scored negatively, that is they were stigmatizing (see Table 2). The most frequently observed negative attributes were isolated body parts, specifically the abdomen (42%); an individual

Table 1 Data collection and image assessment criteria

Descriptive data	Positive attributes	Negative attributes
Name of newspaper source	Consuming healthy foods and beverages	Consuming unhealthy foods and beverages
Date of article	Selling, shopping or serving healthy food	Selling, shopping or serving unhealthy food
The content of the article	Exercising	Headless body
Bodyweight (normal weight, overweight, obese) if a person was depicted	Being an advocate or expert	Isolated body part(s)
Gender, age and race if a person was depicted	Being a patient	Sad or negative facial expression
	Being a professional (e.g. teacher, health worker, business person)	Engaging in sedentary behaviour (e.g. lying down, watching TV)
	Smiling or positive facial expression	Very high level of obesity
	Dressed attractively	Dressed unattractively
	Obesogenic foods and beverages	Cartoon of excess obesity
	Obesogenic streets or traffic	Cartoon with weight problem figure of fun
	Obesogenic advertising	Person excluded from group
	Walking down the street (active)	Walking down the street (headless)
	Being featured in a personal interest story (positive)	Being featured in a personal interest story (negative)
	Being the feature of a weight loss story (population based)	Being the feature of a weight loss story (individual story)

Table 2 Numbers of positive, neutral and negative images and net score, per country

Country	Negative	Neutral	Positive	Net score
South Africa	9	1	3	−6
Hong Kong	9	1	3	−6
Italy	9	0	4	−5
Austria	9	0	4	−5
Morocco	8	1	4	−4
Mexico	8	1	4	−4
Dominican Republic	7	1	5	−2
Columbia	6	2	5	−1
Serbia	6	2	5	−1
Canada	5	3	5	0
India	6	0	7	+1
Netherlands	5	1	7	+2
Brazil	5	1	7	+2
New Zealand	5	0	8	+3
Japan	3	1	9	+6

engaged in sedentary behaviour such as lying down or watching TV (14%); and individuals with negative facial expressions such as distress, sadness or apathy (12%). In contrast, positive imagery included smiling facial expressions (15% of images), depictions of experts or health professionals (11%) or patients in clinical settings (6%). Portrayals of health professionals and clinical settings were considered largely positive as they can normalize and encourage individuals to seek help for weight management, and can foster a greater sense of public empathy for people living with obesity. Other frequently used images included people measuring their abdomen (10%), people having skinfold measurement (3%) or people weighing themselves (4%): these were assessed as generally contributing to a narrative of personal responsibility and stigmatizing. Four examples of images and their associated scores are shown in Fig. S1.

Country comparisons

Newspaper media in all countries showed stigmatizing imagery but there were distinct disparities between countries (Table 2). Japan used fewest negative images in their obesity-related media overall: of the 13 images examined, nine scored positively and only three negatively. This was closely followed by New Zealand and Brazil, which both displayed a majority of positive images. In contrast to this, Italy, Hong Kong and South Africa were ranked lowest, with the majority of images scoring negatively.

Discussion

Our findings suggest that weight stigma and bias in the media is a worldwide issue, as demonstrated in the widespread use of stigmatizing imagery to accompany articles on obesity. While there was some variation, media

consumers in all surveyed countries were exposed to imagery that portrayed people with obesity in a negative or dehumanizing fashion. In the present survey, the media in Italy, Hong Kong, South Africa and Morocco had the highest prevalence of stigmatizing imagery.

Cultural norms in some countries may associate underweight with poverty or disease, leading to a social appreciation of weight gain (12, 13). This may be assumed to lead to less stigmatizing images of people with obesity in the media, but there is no evidence of this effect in the present survey: the South African media showed a high level of negative portrayals of people with obesity. In contrast, Japan, with one of the highest rates of life expectancy and lowest rates of obesity globally, exhibited the least amount of negative imagery.

Weight stigma in the media reinforces dislike and disrespect for people living with obesity and emphasizes 'personal responsibility' for the disease, which may not only absolve governments and commercial actors of responsibility for their role in creating obesogenic environments but may also lead individuals living with obesity to blame themselves and internalize the stigma about their condition, which in turn reduces the likelihood of a successful response to clinical interventions (14) and post-bariatric dietary adherence (15).

To counter this narrative and reduce the use of stigmatizing imagery, various non-profit organizations have made available images that portray people with obesity more respectfully: see, for example, the World Obesity Federation image bank (16) and other image libraries in Germany, the USA and Canada (17–19).

Limitations

This study had several limitations. First, the sample size of articles from each country was relatively small and may not accurately reflect the full scope of material available. Second, the search terms in different languages may have impacted on the accuracy of the yield, for example when back-translated from Serbian to English, the word 'дебљина' translated to 'thickness' instead of 'obesity'. Lastly, the scoring of attributes as positive or negative has a subjective element that can only be reduced by using multiple evaluators and validated with public opinion surveys, neither of which were used in the present pilot study.

Conclusion

From this analysis it appears that public media in all the countries surveyed show stigmatizing imagery associated with obesity, but the extent can vary considerably between countries. Further surveys may show whether the use of such imagery is declining. As a majority of the population become classified as overweight in an increasing number of countries,

and as patients' organizations gain a voice in the media and in policymaking, we may hope for an improvement in the images used when raising public awareness of obesity.

Conflict of Interest Statement

No conflict of interest was declared.

Acknowledgement

References

1. Stanford FC, Tauqeer Z, Kyle TK. Media and its influence on obesity. *Curr Obes Rep* 2018; **7**: 186–192.

2. Kim SH, Willis LA. Talking about obesity: news framing of who is responsible for causing and fixing the problem. *J Health Commun* 2007; **12**: 359–376.

3. Puhl RM, Heuer CA. The stigma of obesity: a review and update. *Obesity* 2009; **17**: 941–964.

4. Thomas SL, Hyde J, Karunaratne A, Herbert D, Komesaroff PA. Being 'fat' in today's world: a qualitative study of the lived experiences of people with obesity in Australia. *Health Expect* 2008; **11**: 321–330.

5. Lewis S, Thomas SL, Hyde J *et al.* 'I don't eat a hamburger and large chips every day!' A qualitative study of the impact of public health messages about obesity on obese adults. *BMC Public Health* 2010; **10**: 309.

6. McClure KJ, Puhl RM, Heuer CA. Obesity in the news: do photographic images of obese persons influence antifat attitudes? *J Health Commun* 2011; **16**: 359–371.

7. Goffman E. *Frame Analysis: An Essay on the Organization of Experience*. Harvard University Press: Cambridge, MA, 1974.

8. 4International Media and Newspapers. Newspapers by Country and Web Ranking. URL: https://www.4imn.com/ (accessed 16 August 2018).

9. Heuer CA, McClure KJ, Puhl RM. Obesity stigma in online news: a visual content analysis. *J Health Commun* 2011; **16**: 976–987.

10. Atanasova D, Gunter B, Koteyko N. Ways of seeing obesity: a visual content analysis of British and German online newspapers, 2009-2011. *Int J Commun Health* 2013; **1**: 1–8.

11. Cooper C. Headless Fatties. URL: http://charlottecooper.net/fat/fat-writing/headless-fatties-01-07/ (accessed 16 August 2018).

12. Okop KJ, Mukumbang FC, Mathole T, Levitt N, Puoane T. Perceptions of body size, obesity threat and the willingness to lose weight among black South African adults: a qualitative study. *BMC Public Health* 2016; **16**: 365.

13. Alves JG, Falcão RW, Pinto RA, Correia JB. Obesity patterns among women in a slum area in Brazil. *J Health Popul Nutr* 2011; **29**: 286–289.

14. Mensinger JL, Calogero RM, Tylka TL. Internalized weight stigma moderates eating behavior outcomes in women with high BMI participating in a healthy living program. *Appetite* 2016; **102**: 32–43.

15. Raves DM, Brewis A, Trainer S, Han SY, Wutich A. Bariatric surgery patients' perceptions of weight-related stigma in healthcare settings impair post-surgery dietary adherence. *Front Psych* 2016; **7**: 1497.

16. World Obesity Federation. Image Bank. URL: http://www.imagebank.worldobesity.org/ (accessed 16 August 2018).

17. University of Leipzig. IFB Adiposity Diseases. URL: http://www.ifb-adipositas.de/en/news-press/photos (accessed 16 August 2018).

18. Rudd Center for Food Policy and Obesity, University of Connecticut. Media Gallery. URL: http://www.uconnruddcenter.org/media-gallery (accessed 16 August 2018).

19. Obesity Action Coalition. OAC Image Gallery. URL: https://www.obesityaction.org/get-educated/public-resources/oac-image-gallery/ (accessed 16 August 2018).

Supporting Information

Additional Supporting Information may be found in the online version of this article at the publisher's web-site:

Appendix S1. Supporting Information.

Table S1. Media outlets examined.

Figure S1. Examples of positive and negative imagery in media sources.