

Motivating or stigmatising? The public health and media messaging surrounding COVID-19 and obesity: a qualitative think aloud study

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Abstract

Purpose – The purpose of this study is to explore how individuals with overweight and obesity living in the UK respond to the public health and media messaging surrounding COVID-19 and obesity.

Design/methodology/approach – Qualitative interview study with a think aloud protocol. A total of 10 participants self-reported to have overweight, obesity or as actively trying to lose weight were recruited through social media and were asked to think aloud whilst exposed to four sets of public health and media materials describing the link between COVID-19 and obesity. Interviews were conducted over zoom, recorded and transcribed verbatim.

Findings – Three primary themes were identified through thematic analysis: “flawed messaging”, “COVID-19 as a teachable moment” and “barriers to change”. Transcending these themes was the notion of balance. Whilst the messaging around COVID-19 and obesity was deemed problematic; for some, it was a teachable moment to facilitate change when their future self and physical health was prioritised. Yet, when focussing on their mental health in the present participants felt more overwhelmed by the barriers and were less likely to take the opportunity to change.

Practical implications – Findings hold implications for public health messaging, highlighting the need for balance between being educational and informative but also supportive, so as to achieve maximum efficacy.

Originality/value – This study offers a novel and useful insight into how the public health and media messaging concerning COVID-19 risk and obesity is perceived by those with overweight and obesity.

Keywords Media, Communication, Stigma, Public health, Obesity

Paper type Research paper

Introduction

Research indicates that those with obesity are at a greater risk of adverse outcomes from COVID-19 (Docherty *et al.*, 2020; Földi *et al.*, 2020; Hamer *et al.*, 2020; Khawaja *et al.*, 2020; Yang *et al.*, 2021; Yates *et al.*, 2020). In response to this, the UK Government introduced a number of measures to reduce obesity prevalence within the UK, including legislative changes and a new public health campaign “*Better Health*” to reduce the risk of serious illness, including that caused by COVID-19 (<https://www.nhs.uk/better-health/>). This campaign launched a series of free tools designed to support individuals to eat healthily, get physically

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Funding: This research did not receive any grant from funding agencies in the public, commercial, or not-for-profit sectors.

Ethical approval: Obtained from the institutional ethical review board.

Competing interests: The authors declare no conflicts of interest.



active and drink less alcohol. In particular, the new app “12-week NHS Weight Loss Plan” aims to help prevent weight gain by helping individuals to make healthier food choices. In addition, recommendations were made for calories to be added to restaurant menus. Further, this campaign was then covered by the media (e.g. print media, online media and social media) as a means to make both the evidence and the campaign accessible to the general public. Previous research suggests that public health campaigns can be helpful through improving knowledge and changing attitudes and subsequent behaviour (Kite *et al.*, 2018). The impact of public health messaging on obesity, however, is complex and raises issues of personal control, responsibility and blame (8). For example, public health messaging highlighting a behavioural model of obesity predicts stronger beliefs in weight being modifiable and controllable (Klaczynski *et al.*, 2004), which in turn can lead to greater weight-related self-efficacy (Burnette, 2010; Burnette and Finkel, 2012). In contrast, however, this approach has also been criticised for its emphasis on personal responsibility for weight and the link with weight bias which may undermine behaviour change (Pearl and Lebowitz, 2014). For example, research suggests that whilst exposure to weight bias messaging can promote motivation to lose weight, it also simultaneously decreases self-efficacy and increases negative affect (Major *et al.*, 2020) with studies reporting mixed result (Hübner *et al.*, 2016; Lambert *et al.*, 2019; Latner *et al.*, 2009; Puhl *et al.*, 2017; Stewart and Ogden, 2019; Wott and Carels, 2010). Furthermore, both weight bias and weight bias internalisation have been linked with increases in body weight and maladaptive eating behaviours and lower motivations for and levels of physical activity (Araiza and Wellman, 2017; Vartanian and Novak, 2011).

The UK Government therefore responded to evidence for the link between obesity and poorer outcomes to COVID-19 with a public health campaign which was subsequently described in the media. To date, the response to this campaign and coverage by the media is unclear, and whilst its goal was to motivate change, it has also been criticised for being stigmatising and illustrative of weight bias. The present study therefore aimed to explore how those who are overweight or living with obesity respond to the campaign using a qualitative think aloud protocol.

The think aloud method was developed as a reflective approach in which individuals verbalise aloud their thinking, offering a unique insight into internal narratives and decision-making processes (van Someren *et al.*, 1994). It has been used widely within research assessing sport and exercise, eating behaviour, addiction and illness cognitions (Crane *et al.*, 2017; Ogden and Roy-Stanley, 2020; Oort *et al.*, 2011; Whitehead *et al.*, 2015). The method is intrinsically participant led, minimising the role of the researcher and aims to tap into an un-interrupted stream of consciousness. Given the political nature of the focus of this study, the tensions existing in the obesity literature concerning behaviour change and weight bias and the potential for researcher bias, the think aloud approach was therefore deemed a novel and appropriate methodology to use.

Aims

The present study aimed to explore how those with overweight and obesity living in the UK respond to the public health and subsequent media messaging surrounding the relationship between obesity and COVID-19, with a focus on whether this was perceived to be motivational or stigmatising. Due to the exploratory nature of this research, a qualitative think aloud approach was utilised to minimise research bias and capture individuals’ in-depth thoughts.

Methods

Design

The study used a qualitative design with a think aloud protocol, whereby participants were asked to think aloud whilst exposed to four sets of public health and media-based materials describing the link between COVID-19 and obesity.

Participants

A total of 25 participants expressed interest in participating in this study by responding to an advertisement on Twitter calling for those living with overweight or obesity to describe their thoughts about the messaging surrounding obesity and COVID-19. From those, 10 participants consented to participate. Eligibility criteria for those participants were: (1) English speaking, (2) over the age of 18, (3) had a BMI of 25+ and (4) had access to either a tablet, laptop or PC with a stable Internet connection.

Measures

Demographics. Participants reported their age, gender, self-reported BMI group (underweight, healthy weight, overweight and obesity), ethnicity and voting preferences. Participants also self-reported their height and weight to calculate BMI.

The think-aloud process. Participants were exposed to three forms of written information and watched one high-profile personal experience video describing the association between obesity and the outcomes from COVID-19. Participants were asked to read/watch the materials at their own pace and to share any thoughts and feelings provoked by what they read/saw, as they occurred to them, out loud. It was made clear that there were no right or wrong responses, and that the researcher was interested in their own unique experiences and thoughts. Participants were reminded of these instructions before reading/watching each material and were offered prompts such as *What are you thinking? What is going through your mind?* and *How does this make you feel?* If the researcher deemed it appropriate. When participants had finished reading/watching each material, they were offered an opportunity to share anything else that they deemed to be relevant.

The interventions. The communication surrounding COVID-19 took many different forms. In particular, it contained factual content about COVID-19 and obesity, emphasised government level interventions which could be described as “nanny-state” based on their interference with personal choice and freedom and emphasised individuals’ personal responsibility or was based on personal stories.

The interventions were therefore developed to reflect each of those components of messaging. The materials were as follows:

- (1) Factual press release describing the association between obesity and COVID

In July 2020 Public Health England (PHE) published a press release summarising a longer PHE report summarising findings that individuals with obesity increases the risk of serious illness and death from COVID-19 (retrieved from <https://www.gov.uk/government/news/excess-weight-can-increase-risk-of-serious-illness-and-death-from-covid-19>). The press release presents objective findings from the report such as the statistics highlighting the increased risk having overweight and obesity poses and contains quotations from health professionals.

- (2) Newspaper article focussing on the need for nanny-state government interventions or personal responsibility

On the same day as the release of the PHE report two contrasting newspaper articles were published in the Guardian (retrieved from <https://www.theguardian.com/society/2020/jul/25/public-health-england-calls-for-action-on-obesity-in-covid-19-fight>) and the Daily Mail (retrieved from <https://www.dailymail.co.uk/news/article-8557629/Overweight-people-THREE-TIMES-likely-die-Covid-19.html>). These articles included details concerning the PHE report and although reflecting similar material, the content of the articles reflected two distinct narratives focussing on either: (1) nanny-state style government interventions and (2) the personal responsibility individuals have for their weight. To match the articles for length

and factual content, two composite articles were created by selecting relevant text to reflect each of these narratives, ensuring these also matched the PHE press release on length.

Nanny-state government interventions: This composite article reflecting nanny-state government interventions contains information from both the Guardian and the Daily Mail. It includes recommendations from public health experts such as a ban on junk food TV advertisements, in-store promotions and mandated publishing of calories on restaurant and takeaway menus in efforts to make it easier for individuals to lose weight.

Personal responsibility: This composite article reflecting the personal responsibility individuals have for their weight also contains information from both the Guardian and the Daily Mail. It includes information specifically relating to diet and exercise, with a particular focus on food shopping and unhealthy snacking habits, and physical activity levels.

(3) High-profile personal experience

Participants also watched a short two-min video clip published on YouTube (retrieved from <https://www.youtube.com/watch?v=kmA9N-gikY4&t=56s>) which consisted of the UK Prime Minister Boris Johnson describing how since his recent hospitalisation from COVID-19, he had lost at least a stone in weight. He describes the personal steps he took to lose weight such as increasing his physical activity. He describes the benefits both physically and psychologically of losing weight as a public motivational plea for individuals to lose weight and introduces the government's Better Health strategy.

Procedure

Participants registered interest in taking part in this study by providing an email address via an anonymous weblink to the survey host platform *Qualtrics*, in response to social media advertisements. Participants provided their informed consent and were reminded they could terminate the study at any point. Interviews took place on zoom were audio recorded and transcribed verbatim. Participants were presented the study materials in a randomised order to counter order effects. Participants read three written articles (PHE press release, government interventions and personal responsibility) and viewed a high-profile personal experience video. At the end of the study, participants were debriefed and completed a short demographic questionnaire. Interviews were conducted between October 2020 and January 2021 and took between 40 min and 1 h 30 min.

Data analysis

Thematic analysis is commonly used within qualitative research to identify, analyse and report patterns, providing researchers with a structured, yet flexible approach to in-depth exploration of qualitative data (Braun and Clarke, 2006). Given its widespread use and application to think-aloud interview studies, thematic analysis was deemed to be appropriate (Crane *et al.*, 2017; Ogden and Roy-Stanley, 2020). The thematic analysis was conducted in five stages (Braun and Clarke, 2006): (1) familiarisation with the data, (2) generation of initial codes, (3) searching for themes, (4) reviewing themes and (5) defining and naming themes.

Reflexivity

Numerous quality assessment frameworks have been proposed by researchers, however discussions surrounding the transparency of biases that researchers can bring to qualitative analysis is of particular relevance. In accordance with recommendations to reduce the impact of bias, the researcher made reflective notes throughout the analytic process and was careful to re-read transcripts in attempts to identify alternate interpretations and perspectives, to ensure the analysis remained grounded in the data (Yardley, 2000).

Results

Ten participants were interviewed via zoom. Participant ages ranged from 25 to 58 (mean = 37.5, SD = 12.43). Eight participants were female, and two participants were male. The majority of participants were White ($n = 9$), and one participant was Asian. Five participants identified to be overweight, four participants identified to have obesity and one participant identified as currently being of a healthy weight, but described how she had been overweight at the start of lockdown and had lost weight post-pregnancy (21 months post baby) in the past 12-months and was continuing to do so. Participant BMI values ranged from 24.83 to 48.85 (mean = 32.48, SD = 9.09). Given the political nature of the messaging participants also described their political affiliation as follows: No political party ($n = 4$), Liberal Democrats ($n = 3$), Labour Party ($n = 1$), Conservative Party ($n = 1$) and Alliance Party of Northern Ireland ($n = 1$). Participant demographics can be found in [Table 1](#).

Three main themes with subthemes were identified through thematic analysis: *Flawed messaging*; *COVID-19 as a teachable moment*; and *barriers to change*. Transcending these themes was *the notion of balance*. These themes summarise how individuals respond to public health and media messaging describing the links between obesity and COVID-19.

Theme 1: Flawed messaging

Participants were very critical of the messaging describing how the use of fear mongering strategies and stigmatising language used made them feel, the impact it had upon them and could have upon others and how it lacked clarity and was inconsistent. The flawed messaging was described through five subthemes: *fear mongering*, *stigma*, *in-consistency of messaging* and the *costs* and *benefits*. See [Table 2](#) for exemplar quotations.

Fear mongering. Participants described how the language surrounding body weight and COVID-19 in the messaging reflected fear mongering strategies, and how it was inciting fear as a means to instigate change. They also described the impact of this fear on their mental health, and some stated disapproval at how that they believed that the government was exploiting fear initiated by the COVID-19 pandemic to encourage others to address weight problems.

Stigmatising. The language used to convey the relationship between COVID-19 and weight was deemed to be stigmatising by several participants who also described how this stigma had negatively impacted upon their psychological well-being. Some participants also described experiences of stigma in their previous attempts to lose weight in response to the calls for individuals with overweight and obesity to be more active. Further, participants compared this current messaging with the cancer research and obesity campaign that was released in July 2019 and was widely criticised by the body positivity movement.

Table 1.
Participant
characteristics

Pseudonym	Gender	Age	BMI category	Ethnicity	Voting preferences
Claire	Female	25	Overweight (25–29.9)	Asian	No party
Amy	Female	33	Overweight (25–29.9)	White	No party
Harriet	Female	25	Obese (>30)	White	No party
Matthew	Male	40	Overweight (25–29.9)	White	Labour party
Lucy	Female	31	Overweight (25–29.9)	White	No party
Wendy	Female	58	Obese (>30)	White	Liberal Democrat
John	Male	52	Obese (>30)	White	Liberal Democrat
Beth	Female	26	Overweight (25–29.9)	White	Liberal Democrat
Diane	Female	35	Healthy weight (18.5–24.9)	White	Other (Alliance)
Jenny	Female	53	Obese (>30)	White	Conservative party

Table 2.
Theme 1: flawed messaging exemplar quotations

Theme and subtheme	Exemplar quotations
<i>Flawed messaging</i>	
Fear mongering	“... from my perspective, it frightened me to death, and I had bouts of depression and felt terrible while I got my head round it, I just thought I was going to die.” – Wendy “A bit insipid to capitalise on the fear of the virus.” – Matthew
Stigma	“So, we’ve got a massive negative stigmatisation about fat being bad. How’s that gonna make people with larger bodies feel? So, it just makes them go Oh God. So, you’re made to feel non valuable, so straight into the weight stigma.” – Wendy “I do not know if I like the idea of the advertising campaign make people fearful of weight ... that backfired when they did it with the cancer advertisement. People just feel blamed and victimised.” – Diane
In-consistency of messaging	“Do you know what makes me laugh here is they say there’s an anti-obesity strategy. And then they say they did that food deal[. . .] Yeah help out eat out. But I feel like if, if obesity is such a problem and take away food is the problem then why is that being offered?” – Claire “The governments whole Eat Out Help Out scheme in August or whatever it was . . . they wanted to, you know, restart the hospitality industry to have restaurants and pubs and things, but actually, was that the best choice knowing that obesity is a big problem in the UK?” – Amy
Costs	“That’s a rea conflict for me because yes absolutely you know we are facing a massive obesity crisis but equally, you know in an already anxious kind of world . . . eating disorders are on a rise and that’s erm not to be discounted.” – Amy “That is obviously something that might lead to more anxiety with erm people who have eating disorders.” – Harriet
Benefits	“I used to really love going into Pret a Manger when I was working in the local city. And knowing that if I had 2 boiled eggs and some spinach, it was about 15 calories. And if I had the artisan French stick with ham, chicken, and mayonnaise, it was about 8,000 calories. I just like knowing that it was there. And sometimes it swayed my choice.” – John “I’m somewhere like at the Starbucks, and they have the calories for their drinks, or snacks. There’s definitely times I’ve gone in and been like you know what I’m just going to have the hot chocolate, I’m just gonna do it. And then you see, it’s like, I do not know, 400 calories. And then you work through the board. And then you end up with a black Americano . . . again . . . because it’s like four calories.” – Diane

In-consistency of messaging. Many participants commented on the inconsistencies in public health messaging, highlighting a need for clarity and in particular drew parallels with the government’s *Eat Out to Help Out* scheme launched in the summer of 2020 which encourage the British public to eat out at restaurants. This conflict was described as frustrating and some alternative suggestions as to what could have been implemented in the place of *Eat Out to Help Out* such as discounts on healthier local produce.

Costs and benefits. Many participants commented on the provision of calorie contents on restaurant menus and discussed this in terms of the potential costs and benefits of doing so. Almost all participants described the publication of calories at restaurants to be something they approved of with some providing stories explaining how the publication of calories has informed healthier food and drink choices in the past. Some, however, highlighted concerns that whilst they themselves welcomed the change; it could potentially be problematic within the context of eating disorders.

In summary, this *flawed messaging* theme describes how individuals were critical of the messaging surrounding body weight and risk COVID-19 perceiving it as stigmatising and at times inconsistent. They also evaluated the costs and benefits of the government’s new strategy, and whilst the publication of calorie content on menus was welcomed, they also shared concerns that such changes could lead to an increase in disordered eating.

Theme 2: COVID-19 as a teachable moment

Participants also described how the pandemic had at times motivated them to change their behaviour, and how this had been facilitated by the public health and media messaging.

COVID-19 was therefore considered a teachable moment which is characterised by four subthemes: *Risk of obesity*, *behaviour change*, *weight loss* and *future health*. See Table 3 for exemplar quotations.

Risk of obesity. Participants described how the messaging had helped to raise the salience of the risk of obesity to health both within the context of COVID-19, and in general. In particular, they described an increased awareness that their weight increases their risk of COVID-19 and discussed the role of other weight related co-morbidities such as heart disease and asthma. Some participants also described how the messaging has also made them more aware of the links between their weight-related co-morbidities and their future health risk regardless of COVID-19.

Behaviour change. For many, the pandemic was seen as a teachable moment, and they described how the pandemic had made them more receptive to messaging about behaviour change. For example, by consolidating their intentions to make lifestyle changes such as reducing the number of take-aways. Participants, however, also described having an increase in unhealthy eating behaviours throughout the course of the pandemic and described having to find alternative ways to engage in physical activity whilst adhering to public health guidelines and legislation.

Weight loss. On reading the messaging, some participants described how COVID-19 had offered a moment to reflect on their weight which had reinvigorated their motivation to lose weight. They therefore regarded the messaging as impactful. Participants, however, also talked about actual weight change, during the COVID-19 pandemic and whilst the messaging had made them more aware of their weight and motivated to change this had been mostly translated into most managing to maintain their weight rather than put more weight on.

Future health. Participants also described being motivated to change their behaviour for benefits beyond a reduction in COVID-19 risk. In particular, participants recognised that

Theme and subtheme	Exemplar quotations
<i>COVID-19 as a teachable moment</i>	
Behaviour change	<i>"I would not say I was worried before but it's kind of like [...] kind of solidified my resolutions to kind of have a healthier lifestyle, [...] This thing is actually dangerous. And you need to kind of, like lead a healthier lifestyle. And like, this is why it's bad."</i> – Lucy <i>"I think my activity levels have changed. But I think it's different type of activity [...] rather than walking from one meeting to another, were trying to get started by going out for like one lunchtime walk or getting it in by doing long walks on the weekend."</i> – Beth
Weight loss	<i>"I feel that now seeing looking and reflecting over the last nine to 10 months [...] I'm feeling like a revitalise, I need to do something, I need to refocus on my own health to lose the weight, get going and actually concentrate on losing that weight."</i> – Jenny <i>"I have like gone through [...] kind of being overweight at the beginning of lockdown. And then like [...] I kind of started to lose weight to, um, kind of like [...] I'm still in the overweight category, but it's not far until I'll be down"</i> – Harriet <i>"I'm kind of proud to say that I did not gain any weight at all throughout the whole lockdown."</i> – Lucy
Future health	<i>"It's pretty clear that it [...] losing the weight would help. It's not just about COVID and the pandemic. It's all about the cancers, your heart disease."</i> – Jenny <i>"In the last six months, I've lost about a stone. So, I feel like it has helped [...] but I actually feel healthier for it. Like, with my condition with PCOS, it's a [...] it's a lot better, and the symptoms are better, and I'm only actually in pain now when I'm on my period. So, I feel like that its actually benefited me losing weight."</i> – Claire

Table 3.
Theme 2: COVID-19 as
a teachable moment
exemplar quotations

changing aspects of their behaviour had the potential to prevent other health conditions from developing in the future. Similarly, participants also described how changes in behaviour and weight as a result of the public health and media messaging had also been beneficial for the management of pre-existing chronic conditions and general psychological well-being.

In summary, for some, the COVID-19 pandemic and the resulting messaging can be a considered a teachable moment with participants describing an increased recognition of the risk of obesity and their future health resulting in changes to their eating and exercise behaviours and increasing their intentions to lose weight. For some, this translated into weight loss but for most, weight maintenance was the main outcome.

Theme 3: Barriers to change

Although participants described COVID-19 to be a motivator for change, they also described a number of barriers that are reflected in four subthemes: *Environmental barriers*, *social barriers*, and *political beliefs*. See Table 4 for exemplar quotations.

Environmental barriers. Participants discussed environmental barriers to engaging in behaviour change, largely taking the form of accessibility limitations reflecting legislative guidelines. For example, the closure of gyms and the stay-at-home message was described as making it more challenging to engage the types of physical activity they engaged in before the pandemic.

Social barriers. In addition to environmental barriers, participants also described a range of social barriers to behaviour change throughout the COVID-19 pandemic. For example, changes in work demands had impacted individuals' ability to prioritise their own health and well-being.

Political beliefs. The final barrier to behaviour change was the impact of the participant's political beliefs, which clearly impacted upon their responses to the messaging around body weight and COVID-19. Specifically, those who did not identify themselves to be a supporter of the conservative government were particularly frustrated and sceptical of the motivations surrounding government public health messaging which acted as a barrier to motivations to engage with this messaging and change their behaviour.

Theme and subtheme	Exemplar quotations
<i>Barriers to change</i>	
Environmental barriers	"... in terms of being restricted to one's house and how you're stuck in your own room. How can you do sport if you're locked in for two weeks?" – Matthew "... exercise levels, it's not been increased. And for the first time ... it's just come to mind that I guess that makes sense because gyms are closed pools are closed. And some people might not be able to exercise at home for whatever reason, and they might not have been able to get out." – Harriet
Social barriers	"I think things started to settle, certainly in the NHS although it was still chaotic. We kind of knew what we were dealing with and things felt a bit more manageable. So ... think I was able to start thinking about my own health a bit more [...] And then coming back into the second wave and winter. I think it hit that place of realising that this is not going away. There's no point in waiting for this to end before I do something." – Diane "... the really, really militant kind of body positive people just will not even listen to any of this. Like if they read this, they would get really angry and just kind of disregard everything." – Harriet
Political barriers	"I think, for me, this is not just about politics, it's about [Boris Johnson] as a character. He has no credibility with me whatsoever. So, in fact, it's just reinforced some of my beliefs ..." – Wendy "I just do not trust [Boris Johnson]. Just feels like a publicity stunt." – Diane

Table 4.
Theme 3: barriers
exemplar quotations

This theme *Barriers* describes some of the perceived barriers participants had to changing their behaviour or losing weight as a result of the public health messaging surrounding COVID-19 and body weight. These were present across a range of domains, including environmental barriers largely dictated by legislative guidelines, social barriers such as work demands and participants' political beliefs.

Transcending theme: notion of balance

Participants therefore responded to the public health and media messaging with by describing the messaging as flawed, seeing it as a teachable moment and describing a number of barriers to behaviour change. Transcending these three themes was the notion of balance. In particular, participants described how whilst the messaging had motivated them to change, this had been undermined by a number of barriers, and that they needed to find a balance between looking after their mental health in the here and now and improving their future health after lockdown by losing weight. Therefore, whilst the messaging had made them more aware of the risks of their weight to their health, the impact of the pandemic on their daily lives had resulted in a need for greater self-care which had undermined any desire for weight loss. See [Table 5](#) for exemplar quotations.

Furthermore, their responses to the messaging also illustrated the need for balance in the language used, and whilst participants recognised that there was a need to communicate the relationship between weight and COVID-19, they felt that this should be done sensitively as stigmatising language was seen as undermining the extent to which the COVID-19 pandemic can serve as a teachable moment.

Discussion

The present study aimed to explore participants' responses to public health and media messaging surrounding COVID-19 and obesity. Overall, participants described the messaging as flawed for being stigmatising, inconsistent and lacking clarity. Further, whilst this messaging it had raised the salience of the health risks of obesity both in terms of the COVID-19 and more generally which had motivated behaviour change for some, the extent of this teachable moment had been limited by barriers such as working from home and the closure of gyms. Furthermore, participants described having to find a balance between their mental health in the here and now during the pandemic vs physical health in the future. Therefore, whilst the messaging around COVID-19 and obesity was deemed as problematic for some, it could be considered a teachable moment to facilitate change when individuals prioritise their physical health and future self. Yet, when focussing on their present self and placing the emphasis on mental health participants felt more overwhelmed by the barriers and were less likely to take the opportunity to change.

The findings from this study therefore hold important implications for public health messaging, highlighting a need for balance between being educational and informative, but

Exemplar quotations

The notion of balance

"It is monstrously difficult; I think surviving lockdown is more important than trying to get people to lose weight in lock down I mean . . ." – Matthew

"So basically, I thought like on the scale of like, my life versus like several extra kilos, probably several extra kilos is a better outcome than losing my life" – Lucy

"People are trying to cope with lockdown on and lost employment but might have been told that you have to lose weight at the same time. It's quite unhelpful." – Diane

Table 5.

Transcending theme:
the notion of balance

also supportive, so as to achieve maximum efficacy (Lillis *et al.*, 2009; Pearl and Puhl, 2018; Puhl and Heuer, 2010). The pandemic presents with a considerable risk to both an individual's mental and physical health (Banerjee and Rai, 2020; Földi *et al.*, 2020; Yang *et al.*, 2021; Yates *et al.*, 2020); therefore, it has been important for individuals to not only manage their health in the moment but crucially, to survive the experience. Participants described conceptualisations of their mental and physical health to be dichotomous entities, in which prioritising one negatively impacts upon the other. As such, individuals felt compelled to choose between preserving their mental health in the present, at the sacrifice of their future physical health. This was discussed through a recognition of the need for balance in public health messaging. Whilst it is acknowledged that it is undoubtedly important to communicate health information detailing the relationship between COVID-19 outcomes and body weight to increase knowledge, this needs to be done without stigma so as to support those who this message is targeted towards. Fear appeals are widely used in public health messaging and have been targeted towards a range of health behaviours including condom use, smoking and vaccinations (Peters *et al.*, 2013; Ruiter *et al.*, 2014; Tannenbaum *et al.*, 2015). However, the effectiveness of using such techniques has been demonstrated with mixed results yielding positive (Witte and Allen, 2000), null (Hoog *et al.*, 2008) or even negative (Peters *et al.*, 2013) effects.

The findings from this study therefore hold important implications for public health messaging, highlighting a need for balance between being educational and informative, but also supportive, so as to achieve maximum efficacy (Lillis *et al.*, 2009; Puhl and Heuer, 2010). Findings also raise important questions for research surrounding the notion of balance with relation to weight bias. In particular, it would be important for future research to investigate at what point is messaging such as this perceived to be motivational or stigmatising, especially in relation to the prevention and treatment of obesity. Although many of the participants perceived the public health messaging concerning the relationship between COVID-19 and body weight to be a key moment that prompted motivation to engage in lifestyle and behavioural changes, prior research suggests that stigmatising messaging can have a negative impact on behavioural motivations and well-being (Araiza and Wellman, 2017; Pearl and Lebowitz, 2014; Pearl and Puhl, 2018; Vartanian and Novak, 2011).

The findings from this study also hold implications and applications beyond the COVID-19 pandemic and obesity. All chronic health conditions involve a lifestyle or behavioural component, be this a contributing factor to the onset of the condition or its management, which implicate a degree of ownership, blame or behaviour change (e.g. PrEP use and HIV). Findings suggest that the balance between public health messaging being motivational vs stigmatising is complex. Getting this balance right could help to effectively prevent and manage chronic health conditions, whilst also improving the psychological well-being of those who this messaging is targeted towards.

Strengths and limitations

This study offers a novel and useful insight into how the public health and media messaging concerning COVID-19 risk, and obesity is perceived by those with overweight and obesity. However, there are some problems with the study. First, participants were interviewed between October 2020 and January 2021. During this time period, there were significant changes to legislation due to surges in cases of COVID-19 both locally and nationally. In addition, this time period saw significant advancements with regards to the development and roll-out of COVID-19 vaccinations. Both fluctuations in infection rates and the increasing availability of the COVID-19 vaccination are likely to shape an individuals' perception of risk. Second, those volunteering to take part in the study may well have not been representative of the population as a whole. For example, the sample was mostly female, which due to greater

concerns surrounding body image (Puhl *et al.*, 2018) could have influenced our findings. In line with qualitative research, however, the study does offer in depths insights into how people respond to the messaging rather than insights which can be generalised to a wider population. It is suggested that in light of these limitations, this paper offers a useful standpoint to encourage discussions and future research exploring the notions of messaging and the impact this has upon those it is targeted towards.

Conclusions

Findings from this study suggest that the messaging regarding COVID-19 and obesity is seen as flawed due to being stigmatising, inconsistent and lacking clarity. It also however raised the salience of the health risks associated with obesity and for some can be considered a teachable moment as it offered an opportunity for change. This change, however, was often undermined by a number of barriers together with the need to weigh up the balance between mental health in the here and now vs physical health in the future.

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