

---

Citation:

Bridge, G and Flint, SW and Tench, R (2020) An exploration of the portrayal of the UK soft drinks industry levy in UK national newspapers. Public Health Nutrition. ISSN 1368-9800 DOI: <https://doi.org/10.1017/S1368980020000208>

Link to Leeds Beckett Repository record:

<https://eprints.leedsbeckett.ac.uk/id/eprint/6968/>

Document Version:

Article (Accepted Version)

---

The aim of the Leeds Beckett Repository is to provide open access to our research, as required by funder policies and permitted by publishers and copyright law.

The Leeds Beckett repository holds a wide range of publications, each of which has been checked for copyright and the relevant embargo period has been applied by the Research Services team.

We operate on a standard take-down policy. If you are the author or publisher of an output and you would like it removed from the repository, please [contact us](#) and we will investigate on a case-by-case basis.

Each thesis in the repository has been cleared where necessary by the author for third party copyright. If you would like a thesis to be removed from the repository or believe there is an issue with copyright, please contact us on [openaccess@leedsbeckett.ac.uk](mailto:openaccess@leedsbeckett.ac.uk) and we will investigate on a case-by-case basis.

# **Title: An Exploration of the Portrayal of the UK Soft Drinks Industry Levy in UK National Newspapers**

**Authors: Gemma Bridge, Stuart Flint, Ralph Tench**

## **Abstract**

**Objective:** News media play a role in politics through the portrayal of policies, influencing public and policymaker perceptions of appropriate solutions. This study explored the portrayal of sugar and sugar-sweetened beverage (SSB) taxes in UK national newspapers. Findings aid understanding of the role newspapers play in shaping understanding and acceptance of policies such as the UK Soft Drink Industry Levy (SDIL).

**Design:** Articles discussing sugar or SSB taxes published in 6 UK national newspapers between April 1, 2016, and May 1, 2019, were retrieved from the LexisNexis database. Articles were thematically analysed to reveal policy portrayal.

**Setting/ Participants:** Analysis of UK newspaper articles.

**Results:** 286 articles were assessed. Sugar and SSB taxes were discussed across the sample period but publication peaked at SDIL announcement and introduction. Themes were split according to support for or opposition to taxation. Supportive messaging consistently highlighted the negative impacts of sugar on health and the need for complex actions to reduce sugar consumption. Opposing messages emphasised individual responsibility for health and the unfairness of taxation both for organisations and the public.

**Conclusions:** Sugar and SSB taxes received considerable media attention between 2016 and 2019. All newspapers covered arguments in support of and opposition to taxation. Health impacts of excess sugar and the role of the soft drink industry in reducing sugar consumption were prevalent themes, suggesting a joined-up health advocacy approach. Industry arguments were more varied, suggesting a less collaborative argument. Further research should investigate how other media channels portray taxes such as the SDIL.

## Introduction

Reduction of free sugar intake to < 5% of total energy intake has been recommended by Public Health England<sup>(1)</sup>, the Scientific Advisory Committee on Nutrition<sup>(2)</sup> and the World Health Organization<sup>(3)</sup>. Sugar-sweetened beverages (SSB) account for a large proportion of sugar intake in the UK, particularly in children and adolescents<sup>(2)</sup>, and consumption has been associated with obesity and dental cavities<sup>(1)</sup>. As SSB consumption continues to increase globally<sup>(4)</sup>, SSB taxes have been proposed and supported by public health advocates to improve the food and beverage environment. SSB taxes have been implemented in a number of countries globally with evidence to support their effectiveness to reduce the purchase and consumption of SSBs<sup>(5)</sup> and their potential to reduce population weight<sup>(6)</sup>. The UK became one of the latest countries to introduce an SSB tax when the UK Government implemented the Soft Drinks Industry Levy (SDIL) in April 2018<sup>(7,8)</sup>.

However, the food and drink industry has strongly opposed taxation<sup>(9)</sup>. Taxation can reduce profits for the industry since SSB consumption is reduced<sup>(10,11)</sup> and taxes can spark substitution to other market actors such as those making water or milk drinks<sup>(12)</sup>. Opposing industry arguments emphasize individual responsibility and using tactics similar to those employed by the tobacco industry<sup>(13,14)</sup>. Self-regulatory programs (such as the UK responsibility deal)<sup>(15,16)</sup> have been supported by the food and drink industry but have done little to reduce the obesogenic environment whilst legitimizing industry involvement in regulation<sup>(15)</sup>. Previous research suggests that individual responsibility and paternalistic rhetorics are used to shift responsibility from industry onto individuals, thus influencing how government regulate products such as SSBs<sup>(13,17)</sup>. The potential for the food and drink industry to oppose taxation is possible because although the association between SSB consumption and poor health is extensive, the association, like the diseases themselves, is complex, with some opposing findings<sup>(18,19)</sup>.

The media has the power to shape what is on the public agenda by focusing attention on certain topics<sup>(20)</sup>. Solutions to obesity are debated both politically and socially but how such solutions are framed in news coverage can influence public perceptions. A frame is a 'package' which delivers a particular description of an issue, and identifies causes and solutions, either implicitly or explicitly<sup>(21)</sup>. Framing involves the selection or omission of certain information or making certain aspects of an issue more salient<sup>(22)</sup>. Regarding policy, framing can determine how the public understand the information they receive<sup>(23)</sup> and how accepting they are of proposed solutions. Frames can also shape perceptions amongst policymakers which can influence how political decisions are made<sup>(24,25)</sup> and what policies are implemented. The impact of frames has been demonstrated across a range of public policy debates including those related to alcohol, tobacco, and mandatory car seat belt wearing<sup>(26)</sup>.

As the media is an important factor in how readers, including policymakers, understand and act upon societal issues<sup>(27)</sup>, multiple stakeholders engage in power struggles to shape public perceptions of an issue. In relation to policy issues, the Advocacy Coalition Framework (ACF) suggests that these stakeholders are the coalitions of actors that argue for or against a certain policy<sup>(28)</sup>. The coalitions, as they relate to health policies such as SSB and sugar taxes, are public health and private industry. These coalitions are typically in opposition, engaging in battles to frame debates in relation to individual freedom and collective responsibility<sup>(29)</sup>. In doing so, the groups push frames of market justice and social justice respectively<sup>(30)</sup>. Advocates of social justice argue for shared responsibility (and thus support fiscal policies such as taxation) whilst those advocating market framing push individual freedom (and oppose government regulations)<sup>(29)</sup>. According to the ACF, the ‘Secondary Aspects’ of personal beliefs, such as those that relate to the implementation of policy can be changed through framing, as people learn about the issue in question and the policy effects<sup>(31)</sup>.

There are inequalities in political and media influence with the messages presented in newspapers from those who are the most powerful<sup>(32)</sup>. What is published in the media is also shaped by the ideology of the media sources itself, which in turn is often influenced by the preferred messaging of the most powerful, i.e. the political and corporate elites, upon which mainstream news media rely for funding and information<sup>(33)</sup>. When certain frames become dominant and appear in the news media more frequently than others, it not only suggests a greater influence of the stakeholders sharing that message, but it can lead to alterations in perceptions and impact whether or not an issue reaches the political agenda<sup>(26)</sup>, highlighting the power of the media. If the market frame (that pushed by industry in opposition to political regulations such as taxes) becomes dominant, policy implementation can be slowed, avoided or repealed<sup>(34)</sup>. Investigating what is published in the media regarding SSB taxes and how solutions to the reduction of sugar consumption are portrayed can improve understanding of what the dominant frames were, and how they may have influenced the political agenda<sup>20</sup> as well as public acceptance of such strategies.

To understand what messages were prominent in the news media in relation to SSB and sugar taxation, we investigated the portrayal of SSB and sugar taxation in UK national newspapers. The UK has a large and resilient newspaper scene including at least 15 national newspaper titles, most of which are published daily<sup>(35)</sup>. There is an equally large and diverse national readership, with newspapers read by approximately 38% of UK adults<sup>(36)</sup>. As a result, newspapers are a relevant platform upon which to investigate how societal issues, such as public health policies, are portrayed. Previous research<sup>(37,38)</sup> has investigated how newspapers have framed the SDIL. Findings of these studies suggested that SSBs were increasingly discussed in newspapers and that private

industry arguments in opposition of government intervention were prevalent in 2014, decreased in 2015 but reappeared in 2016 following the announcement of the SDIL, echoing portrayal in previous policy debates<sup>(39)</sup>. The aim of the current study was, for the first time, to investigate how the SDIL was portrayed between 2016 and 2019, covering the announcement, implementation, and 1<sup>st</sup> anniversary of the policy.

## **Method**

### ***Data sources***

Qualitative analysis of newspaper articles reporting on sugar, sugar taxes or the SDIL between April 1, 2016, and May 1, 2019, was conducted. The analysis period incorporates the announcement of the SDIL on 16 March 2016, the Government consultation process on the policy (summer 2016), the implementation of the SDIL on 6 April 2018, and the first year anniversary of the policy in April 2019<sup>(8)</sup>. Newspaper articles were freely available on the online database LexisNexis<sup>(40)</sup>. The search string used was ‘sugar’ and ‘tax’. Articles were ordered according to relevance on LexisNexis. The first fifty articles from each newspaper title that met the inclusion criteria were retrieved. Articles were downloaded between 19 September and 21 September 2019.

### ***Article selection and inclusion***

Articles included were published between April 2016 and May 2019, in one of the six of the most highly circulated UK national newspapers (The Daily Telegraph, The Times, The Daily Mirror, The Sun, The Express and The Daily Mail). The focus of all articles included was on sugar or SSB taxation, with most focusing specifically on the UK SDIL. Articles published as editorials, features or letters were excluded, as were articles published in Ireland. The newspapers were selected based on their high circulation figures (as of 2019)<sup>(41)</sup>, and their representation of the three newspaper groups present in the UK circulation (text-led newspapers (TL) (otherwise called broadsheet or quality newspapers) and tabloids, which can be further split into ‘middle-market dailies’ (MMD) and ‘red top’ newspapers (RT)). The newspaper groups differ based on the style of articles published and their readerships<sup>(42)</sup>. TL newspapers traditionally publish articles that are serious in their content with few images. Tabloids (RT and MMDs) typically have a more sensationalist news style with a celebrity-orientated news agenda. TL readers are predominantly from the AB, upper professional and managerial, socioeconomic groups whilst tabloid readers are predominantly in the C2-E socioeconomic group<sup>(42)</sup>. Using this three-way typology in the analysis of newspaper articles helps to ensure representation of the different ways that newspapers present a story or issue and has been employed and supported in previous research<sup>(38)</sup>.

### **Data analysis**

## ***Thematic analysis***

Article titles were first read to ensure relevance, then each article was read in full by the lead researcher. The actors who were mentioned or quoted were recorded. Initial codes were developed to highlight topics in the articles, then codes were collated into potential themes. The themes were reviewed by a member of the research team and were then defined and named. The themes developed aimed to capture important arguments and notions within the data in relation to sugar and taxation in UK national newspapers. Themes were grouped according to their support of or opposition to taxation. Extract examples were selected to represent each theme. The thematic approach employed here has been described in detail by Braun and Clarke<sup>(43)</sup>. Microsoft Excel and QSR International's NVivo 12 software<sup>(44)</sup> were used to organise and code the data.

## **Results**

An initial search of LexisNexis retrieved 1998 articles from the 6 newspapers selected: The Times (n=640), The Daily Telegraph (n=336), The Mirror (n=229), The Express (n=126), The Sun (n=447), The Daily Mail (n=220). Of those articles, only the most relevant articles (assessed according to the LexisNexis search function which ordered articles according to the presence of the search string words ('sugar' and 'tax') and on brief reading of the article by the lead researcher to assess the topic of discussion) were downloaded, with an aim for 50 articles per newspaper. Fifty articles were considered as an appropriate number for this analysis since thematic saturation was reached. Two-hundred and eighty-six articles were included in the analysis (n=50 from The Times, The Daily Telegraph, The Sun and The Daily Mail, n=47 from The Daily Mirror and n=39 from the Daily Express).

The length of the articles varied from less than 100 words to over 1000. Articles discussing sugar or SSB taxes were published across the sample period, with some indication that articles peaked at key SDIL events (such as the implementation of the SDIL in 2016). The highest publication number per newspaper occurred in 2016 and 2018 (n=10). Whilst in 2017 and 2019 (a period of inactivity in terms of SSB policy change in the UK) an average of 5 articles were published across the sample period. (As the number of months of publication included in the analysis varied (i.e. 9 months for 2016, 12 months for 2017 and 2018 and 5 months for 2019) the average number of articles published per month across newspapers was assessed).

Three broad categories of stakeholder group were identified in the articles: 1) civil society and public health interest groups (quotes/mentions supported the negative health impacts of sugar and the need to implement sugar/ SSB taxes); 2) the soft drink industry, food and drink retailers and civil society interest groups (quotes/ mentions opposed the benefits of taxation on health and

described the potential negative impact on businesses); and academics (quotes/ mentions both supportive of sugar/ SSB taxes and in opposition, depending on research being presented).

### ***Results of the thematic analysis:***

Themes are described and examples to evidence their presence in newspapers are provided in the text below. Figure 1 shows the themes identified during the analysis and the codes that make them up.

\*\*\*[Insert Figure 1 here]\*\*\*

### **Arguments for sugar taxes**

#### ***Sugar consumption and impacts on health***

Excessive sugar consumption, which in the UK was reported to be *'the world's seventh highest...with the average person consuming 93.2 grams a day'* by the Times<sup>(a)</sup> was linked with a number of health conditions. The three conditions described most frequently were obesity, diabetes and dental decay. Obesity was the most frequently discussed effect on health with most articles describing at least the prevalence of obesity in the UK. For example, *'More than a quarter of British adults are classified as obese'*<sup>(b)</sup>. As obesity is increasing in prevalence, many articles described the condition as a *'growing crisis'*<sup>(c)</sup> an *'epidemic'*<sup>(d)</sup> or even as *'the greatest public health threat'*<sup>(e)</sup> for the UK, highlighting the necessity for action. Some articles went on to state that *'Britain is on its way to becoming a chronic "nation of fatties"'*<sup>(f)</sup>, and likely to *'become the "fat man of Europe" within a decade'*<sup>(g)</sup>.

The association between sugar intake and diabetes was also mentioned frequently. Like obesity, the prevalence of diabetes was often stated. For example, *'More than four million Britons are blighted by diabetes'*<sup>(h)</sup>. Excess sugar consumption was touted as being a *'leading cause of diabetes'*<sup>(i)</sup>, with high SSB consumption reported to be *'one of the central causes of high sugar intake'*<sup>(j)</sup>. The links between high sugar intake and health conditions including obesity and diabetes were widely supported by research, increasing their legitimacy. For example, key findings from sugar intake reports were shared: *'children aged five are gorging on sugar by eating four times the recommended limit'*<sup>(k)</sup>. The third condition associated with excess sugar and SSB consumption was poor oral health. The impacts of this that were reported largely related to children. For example, stating that *'children are suffering an "oral health crisis" as more than 100 a day go to hospital to have several rotten teeth removed'*<sup>(l)</sup>.

Many articles went on to describe the consequences of conditions associated with excess sugar consumption. Some focussed on the individual impacts. For example, the link between obesity and *'major health problems, including heart disease, cancer and diabetes, in later life and low self-*

*esteem*<sup>(m)</sup> were described. The increased risk of cancer was particularly prevalent in articles, with many describing obesity (caused by excess sugar consumption) as *‘the biggest cause of cancer after smoking’*<sup>(n)</sup>. Poor oral health was touted to cost *‘children around 60,000 days off school a year’*<sup>(o)</sup>, likely affecting educational attainment. Whilst, having teeth removed due to decay was described as *‘very traumatising’*<sup>(p)</sup>. Societal impacts of excess sugar consumption were also prevalent across articles, with most stating concerns for the NHS. For example, stating that diabetes is a *‘threat to the sustainability of the NHS’*<sup>(q)</sup>. Others described poor oral health in children as *‘an epidemic...costing the NHS £50million a year’*<sup>(r)</sup>. Some articles extended these financial concerns to the whole economy, describing increasing rates of non-communicable diseases as *‘an economic catastrophe’*<sup>(s)</sup>.

### ***Proposed actions to reduce sugar consumption***

Taxation of SSBs was cited as an effective method to reduce overall sugar consumption across newspapers. Support for taxation was largely from public health advocates. Jamie Oliver was the most frequently cited advocate for such a tax, arguing that it *‘would be the “single most important” change that could be made’*<sup>(t)</sup> as *‘soft drinks are the biggest source of sugar among school kids and teenagers.’*<sup>(u)</sup>. Exemplifying the influence of the celebrity chef, he was touted as being *‘the most influential person in the UK’s food and drink industry’*<sup>(v)</sup>.

The UK sugar tax was implemented in 2016, with the aim of encouraging reformulation of SSBs. Despite industry opposition, months before the implementation, extensive reformulation had occurred as *‘The mere threat of imposing sugary drinks levies...sent manufacturers scrambling to reduce their levels to below 5g per 100ml’*<sup>(w)</sup>. Some industry spokespeople were quoted in relation to reformulation, with many presenting their efforts in a positive light: *‘We’ve been working hard to reduce the sugar in Fanta even further, without compromising on the taste.’*<sup>(x)</sup>. As a result of the changes to sugar content: *‘Drinks now contain 45million fewer kilos of sugar’*<sup>(y)</sup>, and also to positive consumer responses to the tax: *‘consumers are switching to healthier options’*<sup>(z)</sup>. Newspapers also mentioned the results of international sugar taxes, for example, in Mexico, describing their impacts on sugar consumption, and touting taxation as an effective solution.

As a result of the positive effects of the sugar tax on reducing sugar consumption, but given the continued increases in obesity, and the continued industry opposition, some articles presented the argument that the tax is just a first step. Arguments for extension of the sugar tax to other products were widespread with most presented by public health advocates and academics. For example, stating that *‘the sugar tax to be extended to milk drinks’*<sup>(aa)</sup>, or *‘Junk food should be taxed and vegetables subsidised to tackle our obesity crisis’*<sup>(bb)</sup>. Other articles presented arguments for the implementation of additional policies. For example, arguing that there should be *‘a crackdown on*



*junk food advertising, with a 9 pm watershed*<sup>(aa)</sup>, as well as *'controlling the "deep discounting" by supermarkets of unhealthy foods should be given a high priority*<sup>(cc)</sup>.

### **Arguments against sugar taxes**

A number of articles presented arguments in opposition to sugar taxes. These arguments, which were largely presented by actors from the food and drink sector, included the potential regressive effects of food and drink taxes, the impacts of artificial sweeteners, concerns over Brexit, the notion of individual responsibility and the unnecessary over-involvement of the government. Opposing arguments were apparent across the entire sample but were focused at the announcement (2016) and implementation (2018) of the SDIL.

#### ***Sugar taxes are unfair***

First, opponents stated that taxes are unfair and thus almost *'certain to be blocked by Euro judges for being "discriminatory"*<sup>(dd)</sup>. This argument related to the impact of taxes on business performance (comparative to other drinks makers), with the tax likely to affect the profit-making ability of businesses across the entire soft drinks supply chain. It also related to the regressive nature of taxes since, according to quotes from opponents, they *"hit the poorest families hardest"*<sup>(ee)</sup>, and *'just drive poor people further into poverty'*<sup>(ff)</sup> without reducing *'sugar consumption in a "meaningful way"*<sup>(gg)</sup>. These arguments were concentrated in early 2016, around the time of the SDIL announcement, but continued throughout the sample period.

A related argument against sugar taxes was the unfair dual impact of the new sugar tax and the uncertain nature of Brexit – an argument which first appeared in 2017. The tax was touted as being an additional burden for soft drink businesses in the UK. Opponents stated that *'The Government would be well advised to pause it [the sugar tax] during Brexit negotiations...'*<sup>(hh)</sup>. Having to change recipes would be a *"monumental distraction" when the UK faced a no-deal Brexit*<sup>(ii)</sup>, that would, unnecessarily, make it harder for them to operate and compete with other organisations.

#### ***Artificial sweeteners***

The third argument against sugar taxes was presented largely by consumers of SSBs who were concerned by the increased use of artificial sweeteners. Some opponents stated that the tax had negatively impacted people with diabetes who *'rely on Lucozade to boost blood glucose [as they] will have to buy twice as much as the amount of sugar in the drink is being halved...'*<sup>(jj)</sup>. Whilst others stated that sweeteners may be associated with an increased risk of health problems, presenting research to support such claims. For instance: *'men who had two diet drinks a day were 23 per cent more likely to develop heart failure'*<sup>(kk)</sup>. Yet more opposition related to the altered taste of SSBs due to the increased use of sweeteners.

## ***Individual responsibility***

The penultimate argument related to the promotion of individual responsibility. This was demonstrated by the emphasis on behaviour change, the importance of physical activity and the need for self-control. Education was pushed as a preferential focus for efforts to reduce sugar consumption, with articles presenting quotes such as: *'The only realistic way of tackling obesity is to educate people about nutrition and encourage them to exercise self-control'*<sup>(ll)</sup> and *'Children should simply be advised to move about more and eat less'*<sup>(mm)</sup>. In a similar vein, the soft drink industry reported that education, and voluntary sugar reduction initiatives would be enough to control sugar consumption in the population. Such individual framing attributes blame to the individual, suggests health issues such as obesity and diabetes are the result of social deviances and propose that public policy is unwarranted. This individualistic framing by newspapers has been reported previously<sup>(45)</sup>. The final, but highly related argument presented in opposition to sugar taxes, related to their paternalistic nature. This argument occurred across newspapers and across the sample period and can be demonstrated by quotes such as: *'this is another example of irresponsible meddling from the high priests of the nanny state'*<sup>(nn)</sup>.

## **Discussion**

The aim of this study was to assess the portrayal of sugar, SSB taxes and the UK SDIL in UK national newspapers from 2016 to 2019. This period represents the announcement, implementation and anniversary of the SIDL, and has not been investigated previously. The SDIL has become a prominent topic in UK national newspapers as evidenced by the number of articles published and assessed in this and previous studies<sup>(37,38)</sup>. The peaks in newspaper coverage between 2016 and 2019 coincided with key policy events: the announcement of the SDIL (March 2016), the public consultation which concluded in October 2016, and the introduction of the SDIL (April 2018). Buckton et al. observed a similar pattern of coverage between 2015 and 2016<sup>(38)</sup>. The results of the present study highlight the continued political interest in sugar, the society-wide health problems that SSBs pose and the governmental solutions to overconsumption.

Supportive messages, presented by public health advocates, academics and celebrity endorsers were largely consistent across the sample period. The negative health impacts of excess sugar intake were frequently discussed and often supported by research linking sugar or SSB consumption with poor health<sup>(46)</sup>. Similar messages have been found in earlier analyses<sup>(37,38)</sup>. SSB taxation including the SDIL was also portrayed as a positive action with the potential to reduce SSB intake. Public health groups highlighted the importance of industry taking at least some responsibility for public health, describing them of vectors of disease. This has been found to be effective in shifting blame from individuals to the industry in other contexts, such as tobacco control<sup>(47)</sup>. As has been found in

previous analyses, supporters also portrayed industry corporate social responsibility programs (such as the sponsorship of events) as disingenuous<sup>(48)</sup>, whilst highlighting the unnecessary overzealous marketing of SSBs and related products to children<sup>(17)</sup>. The consistency of support for the SDIL across newspapers may reflect media advocacy efforts of public health groups which pushed social justice frames<sup>(49)</sup>. It is also possible that the fame of Jamie Oliver, who acted as a policy entrepreneur, could have helped to push supportive messages. It is possible that the supportive frames presented in the media may also have played a part in the alteration the ‘secondary aspects’ of personal beliefs to garner political and public support for the SDIL<sup>(50)</sup>, as theorised by the ACF<sup>(28)</sup>.

Opposing messages for SSB taxation were also prevalent across the articles analysed. However, they were less cohesive than those presented by supportive groups. This lack of cohesion may be due to the unexpected announcement of the UK SDIL, but other possible reasons have been hypothesized previously<sup>(17)</sup>. Opposing messages were apparent throughout the sample, but were most frequent at key policy events, such as at SDIL announcement, implementation and its anniversary. This may suggest efforts to promote the individual responsibility rhetoric and encourage the repeal of the SDIL. Individual companies focused on positive messages, for example, highlighting their efforts to reduce sugar via reformulation and their corporate social responsibility programs, which they touted as being part of the solution. Similar actions have been described in previous media analyses<sup>(30)</sup>. Neutral industry-wide groups such as the Food and Drink Federation were often quoted in relation to opposition for taxation and the health harms of SSBs.

Whilst industry stakeholders stated that obesity is a serious problem that needs a solution, they did not agree with the proposed solutions advocated by public health, nor did they agree that industry is to blame for the problem. Although opposing messaging appeared valid, when read in isolation, they were contradictory when considered together. For example, arguments against taxation included the ineffectiveness of SSB taxes to reduce consumption, the benefits of voluntary self-regulation (and the sugar reduction already done by the sector), the unfairness of taxation both for the public and industry themselves, and the potential impact of an SSB tax on the economy especially in light of the uncertainties of Brexit. This confused argument to support a single point (that SSB taxes should not be implemented) has been reported previously<sup>(51)</sup> and has been considered as a form of *kettle logic*<sup>(52)</sup>. Similar confused opposing arguments from SSB manufacturers have been reported previously, with some additional reports of the industry inflating the effects of SSB taxation on the economy (including greater job losses and reduced public revenue generation) to reduce acceptance of taxation<sup>(51)</sup>. The arguments put forward by industry add detail in the context of specific national nutrition policy, namely the SDIL, and also support the

market justice frame identified in prior studies<sup>(21,39)</sup>. Framing conditions such as obesity in this way is an oversimplification, suggests that health is controllable and also ignores the role of the environment, which research has shown plays an important role in the development of the condition<sup>(53)</sup>.

The study presents how a recent public health policy debate was portrayed in national newspapers. Findings improve understanding of the stakeholders involved in SSB or sugar tax policy debates and also highlights the opposing messages presented. For public health, the findings may be useful for future policymakers in anticipating private industry frames following policy implementation. Since the UK newspaper readership is large, it is possible that a substantial proportion of the UK population may have been exposed to the frames presented by journalists on a near-daily basis, and thus their acceptance of policy solutions may have been impacted. However, it is also important to consider other factors that may be involved in shaping public and political debates. For example, research has posited that social media may set the media agenda through reverse agenda-setting<sup>(54)</sup>. Further research should investigate the frames present on social media and ongoing public debates.

The findings of this study are subject to limitations. First, only a sample of newspapers published across the time period was included in the study which may mean that some key messages were missed. Secondly, the images presented in newspaper articles were not included in the analysis. As images can alter the focus and sentiment of an article, without implicitly stating it within the text, it would be beneficial for future research to analyse images and other media presented with articles on the SDIL to investigate the impact on the portrayal of the policy. Thirdly, although media influence on public health-related perceptions using thematic analysis is well researched, this method alone cannot determine the extent to which audience understandings, perceptions and behaviours relate to media representations<sup>(55)</sup>. Finally, the public is exposed to various media such as TV, social media and radio which could all add to or alter understandings. Audiences also do not consume news media in a passive, non-critical way and nor do they take in all the information that they read<sup>(56)</sup>.

## **Conclusion**

This study contributes to an understanding of how the SDIL was portrayed in UK newspapers between the announcement of the policy and its implementation. The research contributes to the field by highlighting prominent frames and identification of the stakeholders involved in the policy debate in UK newspapers. The findings highlight that the SDIL was discussed widely in UK national newspapers in largely a positive light across the sample period, but suggests that opposing arguments continued, and were most apparent in the period immediately following SDIL implementation. The publication of newspaper articles was highest at key policy moments suggesting topic saliency for journalists and readers.

The study contributes to the literature on framing, public health advocacy and corporate political strategies, highlighting how a range of actors seek to influence political decision-makers and the general public through shaping what is published in newspapers via providing information and quotes. Such actions by private industry and public health advocates should be investigated to better understand the policy development process. To further understand the importance of framing within the development of the SDIL, the research could ask actors what strategies they used via survey or interview research. Finally, an investigation of frames presented on different media platforms including social media should be conducted to further inform theoretical understandings of policy development.

### *Newspaper articles cited*

- a. Chris Smyth. Children eat three times as much sugar as they should. The Times (London). January 2, 2019, Wednesday, News. Pg 17.
- b. Sophie Borland. NHS could ban sugary drinks from hospitals. Daily Mail (London). November 9, 2016, Wednesday
- c. Stephen Adams. The proof that TV adverts for sugary cereals are fuelling child obesity. Mail on Sunday (London). October 23, 2016, Sunday.
- d. Andrew Gregory. Great Brit Tum; Obesity soars across the world with alarming levels in the UK. Daily Mirror. April 1, 2016, Friday, News, Pg. 16
- e. Giles Sheldrick. Britons on track to be the fattest in Europe. The Express. April 1, 2016, Friday, NEWS; Pg. 25
- f. Mark Reynolds. Child obesity 'timebomb' to take a heavy toll on NHS. The Express. March 20, 2019, Wednesday, National Edition. News. Pg. 8,9
- g. Sarah Knapton. Statins will be useless as obesity crisis grows; British will be fattest in Europe in just 10 years. The Daily Telegraph (London). April 1, 2016, Friday, National Edition. News. Pg. 1,6
- h. Giles Sheldrick. Label food risks say experts as diabetes soars. The Express. May 21, 2018, Monday, National Edition. News; Pg. 18.
- i. Diabetes crisis. Daily Mirror. August 4, 2016, Thursday
- j. Michael Knowles. How sugar takes terrible toll on our children's teeth. The Express. April 6, 2018, Friday, National Edition
- k. Fiona Macrae. Five-Year-Olds are eating four times their daily sugar limit. Daily Mail (London). June 1, 2016, Wednesday
- l. Andrew Gregory. Over 100 operations a day to pull kids' decaying teeth. Daily Mirror. April 15, 2016, Friday, Northern Ireland
- m. Help your kids eat their way out of the obesity trap. Daily Mirror. August 23, 2016, Tuesday. News. Pg. 26,27
- n. Professor Roger Williams. The big fat truth about obesity? It costs us £40bn a year and is crippling our NHS. Daily Mail (London). September 13, 2018, Thursday
- o. Henry Bodkin. Child's tooth pulled every 10 minutes as high-sugar diets hold sway. The Daily Telegraph (London). April 6, 2018, Friday, National Edition. News; Pg. 6
- p. Ben Spencer. 41,000 kids have their rotten teeth taken out in hospital. Daily Mail (London). January 11, 2017, Wednesday

- q. Louie Smith. NHS diabetes bill rockets 86% in 10yrs. Daily Mirror. August 4, 2016, Thursday, National Edition. News. Pg. 18
- r. Amy-Clare Martin. 322 kids get all teeth out because of sugary diets. Daily Mirror. November 30, 2018, Friday, Northern Ireland. News. Pg. 2
- s. Hanna Geissler. Sugar intake 'must be slashed by two-thirds'. The Express. February 21, 2019, Thursday, Edition 1, National Edition. News. Pg. 8.
- t. How TV chef put food on the political agenda. Daily Mirror. January 5, 2018, Friday, National Edition. News. Pg. 15
- u. Jamie's sugar tax reduces fizzy drinks sales. Daily Mail (London). October 17, 2017, Tuesday
- v. Ian Fletcher. Jamie's best for changing eating habits. Daily Mirror. May 2, 2016, Monday.
- w. Steve Hawkes. Fizzy tax on sugar; Soft drinks. The Sun (England). March 9, 2017, Thursday, National Edition
- x. Andrew Ellson. Fanta secretly cuts sugar but sales keep their fizz. The Times (London). May 17, 2017, Wednesday, National Edition
- y. Katie Morley. Sugar tax on soft drinks raises half its forecast - but that's good news. The Daily Telegraph (London). November 21, 2018, Wednesday, National Edition
- z. Sugar levy hits sales of fizzy drinks. Daily Mail (London). May 30, 2018, Wednesday
- aa. Jamie sweet talks MPs over obesity. Daily Mirror. May 2, 2018, Wednesday, National Edition
- bb. Ben Spencer. We must tax junk food to fight obesity. Daily Mail (London). December 21, 2018, Friday
- cc. Dan Townend. Ban junk food discounts say MPs. The Express. March 27, 2017, Monday, National Edition.
- dd. Steve Hawkes. Euro judges set to block UK sugar tax. The Sun (England). May 16, 2016, Monday
- ee. Oliver Kamm. The critics have got it wrong - a sugar tax will hit the sweet spot. The Times (London). June 2, 2016, Thursday, National Edition
- ff. Alison Little. Clash over benefits of 'sin taxes'. The Express. April 5, 2018, Thursday, National Edition
- gg. Steve Hawkes. Sugar chump; Osborne tax 'will cut just 5 calories a day'. The Sun. June 13, 2016, Monday
- hh. Bradley Gerrard. Put sugar tax back until after Brexit, says soft drinks trade. The Daily Telegraph (London). April 5, 2017, Wednesday, National Edition

- ii. Giles Sheldrick. War on sale of treats; Shops face tough new rules to tackle obesity. Sweet ban in obesity fight. The Express. January 12, 2019, Saturday, National Edition
- jj. Mark Waghorn. Sugar cut is not so sweet for diabetics, Daily Mirror. April 8, 2017, Saturday
- kk. Sophie Borland. Two glasses of diet drinks a day raise diabetes risk'. Daily Mail (London). October 21, 2016, Friday
- ll. Ross Clark. Cutting pudding portions will not combat obesity. The Express. October 1, 2016, Saturday, National Edition
- mm. Craig Woodhouse. Chocs away; Tory nanny state row; Sweets and cereals next for sugar tax. The Sun (England). May 24, 2016, Tuesday
- nn. Super-sweet drinks that won't. Daily Mail (London). May 30, 2016, Monday

## References

1. Tedstone A, Targett V, Allen R, et al. (2015) *Sugar Reduction: The evidence for action*. 1–48. London, UK: Public Health England.
2. Scientific Advisory Committee on Nutrition (2015) *Carbohydrates and health*. London, UK.
3. WHO (2015) *Guideline: Sugars intake for adults and children*. World Health Organisation.
4. Popkin BM & Hawkes C (2016) The sweetening of the global diet, particularly beverages: patterns, trends and policy responses for diabetes prevention. *Lancet Diabetes Endocrinol* **4**, 174–186.
5. Backholer K, Vandevijvere S, Blake M, et al. (2018) Sugar-sweetened beverage taxes in 2018: a year of reflections and consolidation. *Public Health Nutr* **21**, 3291–3295.
6. Backholer K, Sarink D, Beauchamp A, et al. (2016) The impact of a tax on sugar-sweetened beverages according to socio-economic position: a systematic review of the evidence. *Public Health Nutr* **19**, 3070–3084.
7. HMTreasury (2016) Soft Drinks Industry Levy. *GOV.UK*. <https://www.gov.uk/government/publications/soft-drinks-industry-levy/soft-drinks-industry-levy> (accessed October 2019).
8. HMTreasury (2018) Soft Drinks Industry Levy comes into effect. *GOV.UK*. <https://www.gov.uk/government/news/soft-drinks-industry-levy-comes-into-effect> (accessed May 2019).
9. Ainger K & Klein K (2016) *A spoonful of sugar: How the food lobby fights sugar regulation in the EU*. Corporate Europe Observatory.
10. Niblett P, Coyle N, Little E, et al. (2019) Sugar reduction: Report on progress between 2015 and 2018. 108.



11. Colchero MA, Rivera-Dommarco J, Popkin BM, et al. (2017) In Mexico, Evidence Of Sustained Consumer Response Two Years After Implementing A Sugar-Sweetened Beverage Tax. *Health Aff (Millwood)* **36**, 564–571.
12. Teng AM, Jones AC, Mizdrak A, et al. (2019) Impact of sugar-sweetened beverage taxes on purchases and dietary intake: Systematic review and meta-analysis. *Obesity Reviews* **20**, 1187–1204.
13. Brownell KD & Warner KE (2009) The Perils of Ignoring History: Big Tobacco Played Dirty and Millions Died. How Similar Is Big Food? *Milbank Q* **87**, 259–294.
14. Mejia P, Dorfman L, Cheyne A, et al. (2014) The origins of personal responsibility rhetoric in news coverage of the tobacco industry. *Am J Public Health* **104**, 1048–1051.
15. Panjwani C & Caraher M (2014) The Public Health Responsibility Deal: Brokering a deal for public health, but on whose terms? *Health Policy* **114**, 163–173.
16. Gov.UK (2011) Public health responsibility deal. *GOV.UK*.  
<https://www.gov.uk/government/news/public-health-responsibility-deal> (accessed October 2019).
17. Buckton CH, Fergie G, Leifeld P, et al. (2019) A discourse network analysis of UK newspaper coverage of the “sugar tax” debate before and after the announcement of the Soft Drinks Industry Levy. *BMC Public Health* **19**, 490.
18. Gibson S (2008) Sugar-sweetened soft drinks and obesity: a systematic review of the evidence from observational studies and interventions. *Nutr. Res. Rev.* **21**, 134–147.
19. Malik VS, Schulze MB & Hu FB (2006) Intake of sugar-sweetened beverages and weight gain: a systematic review. *Am J Clin Nutr* **84**, 274–288.
20. McCombs M (2004) *Setting the agenda: the mass media and public opinion*. Cambridge, MA: Polity Press.
21. Jenkin GL, Signal L & Thomson G (2011) Framing obesity: the framing contest between industry and public health at the New Zealand inquiry into obesity. *Obes Rev* **12**, 1022–1030.
22. Entman R (1993) Framing: Toward Clarification of a Fractured Paradigm. *Journal of Communication* **43**.
23. Törrönen J (2003) The Finnish press’s political position on alcohol between 1993 and 2000. *Addiction* **98**, 281–290.
24. Camaj L & Weaver DH (2013) Need for Orientation and Attribute Agenda-Setting During a U.S. Election Campaign. *International Journal of Communication* **7**, 22.
25. McCombs ME & Shaw DL (1972) The Agenda-Setting Function of Mass Media. *The Public Opinion Quarterly* **36**, 176–187.
26. Nathanson CA (1999) Social movements as catalysts for policy change: the case of smoking and guns. *J Health Polit Policy Law* **24**, 421–488.
27. Scheufele D (1999) Framing as a Theory of Media Effects |. *Journal of Communication* **49**, 103–122.

28. Sabatier PA (1998) The advocacy coalition framework: revisions and relevance for Europe. *Journal of European Public Policy* **5**, 98–130.
29. Dorfman L, Wallack L & Woodruff K (2005) More Than a Message: Framing Public Health Advocacy to Change Corporate Practices. *Health Educ Behav* **32**, 320–336.
30. Nixon L, Mejia P, Cheyne A, et al. (2015) ‘We’re Part of the Solution’: Evolution of the Food and Beverage Industry’s Framing of Obesity Concerns Between 2000 and 2012. *Am J Public Health* **105**, 2228–2236.
31. Hu FB (2013) Resolved: there is sufficient scientific evidence that decreasing sugar-sweetened beverage consumption will reduce the prevalence of obesity and obesity-related diseases. *Obes Rev* **14**, 606–619.
32. Livingstone S & Lunt P (1994) The mass media, democracy and the public sphere. In *Talk on Television: Audience participation and public debate*, pp. 9–35. London, UK: Routledge.
33. Van Dijk T (1995) Power and the News Media. In *Political Communication in Action*, pp. 9–36. University of Amsterdam: Cresskill, NJ: Hampton Press.
34. Freudenberg N (2014) *Lethal But Legal: Corporations, Consumption and Protecting public health*. Oxford University Press.
35. Yeomans L & Tench R (2006) *Exploring Public Relations*. Harlow, UK: Pearson Education Limited.
36. Ofcom (2019) News Consumption in the UK: 2019. Ofcom.
37. Elliott-Green A, Hyseni L, Lloyd-Williams F, et al. (2016) Sugar-sweetened beverages coverage in the British media: an analysis of public health advocacy versus pro-industry messaging. *BMJ Open* **6**.
38. Buckton CH, Patterson C, Hyseni L, et al. (2018) The palatability of sugar-sweetened beverage taxation: A content analysis of newspaper coverage of the UK sugar debate. *PLOS ONE* **13**, e0207576.
39. Shelton RC, Colgrove J, Lee G, et al. (2017) Message framing in the context of the national menu-labelling policy: a comparison of public health and private industry interests. *Public Health Nutr* **20**, 814–823.
40. LexisNexis (2018) Lexis Nexis Academic.  
[https://www.lexisnexis.com/ap/academic/form\\_news\\_wires.asp](https://www.lexisnexis.com/ap/academic/form_news_wires.asp) (accessed October 2019).
41. Mayhew F (2019) National newspaper ABCs: Guardian sees smallest circulation decline for July 2019. *Press Gazette*.
42. Johansson S (2007) *Reading tabloids: tabloid newspapers and their readers*. Huddinge: Södertörn högskola.
43. Braun V & Clarke V (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology* **3**, 77–101.
44. NVivo (2019) NVivo qualitative data analysis software | QSR International. *NVIVO*.  
<https://www.qsrinternational.com/nvivo/home> (accessed October 2019).

45. Flint SW, Hudson J & Lavallee D (2016) The portrayal of obesity in U.K. national newspapers. *Stigma and Health* **1**, 16–28.
46. Grimes CA, Riddell LJ, Campbell KJ, et al. (2013) Dietary salt intake, sugar-sweetened beverage consumption, and obesity risk. *Pediatrics* **131**, 14–21.
47. Mahood G (2004) *Tobacco Industry denormalization: Telling the truth about the tobacco industry's role in the tobacco epidemic*. 1–28. Non-smokers' rights association.
48. Dorfman L, Cheyne A, Friedman LC, et al. (2012) Soda and Tobacco Industry Corporate Social Responsibility Campaigns: How Do They Compare? *PLOS Medicine* **9**, e1001241.
49. Jones BD & Wolfe M (2007) Public Policy and the Mass Media: An Information Processing Approach. p. 22. Helsinki, Finland.
50. Wallack L & Dorfman L (1996) Media advocacy: a strategy for advancing policy and promoting health. *Health Educ Q* **23**, 293–317.
51. Fooks GJ, Williams S, Box G, et al. (2019) Corporations' use and misuse of evidence to influence health policy: a case study of sugar-sweetened beverage taxation. *Global Health* **15**, 1–20.
52. Derrida J (1998) *Resistances of Psychoanalysis*. Stanford University Press.
53. Papas MA, Alberg AJ, Ewing R, et al. (2007) The built environment and obesity. *Epidemiol Rev* **29**, 129–143.
54. Lycarião D & Sampaio RC (2016) Setting the Public Agenda in the Digital Communication Age. *Brazilian Journalism Research* **12**, 30–53.
55. Kosho J (2016) Media Influence On Public Opinion Attitudes Toward The Migration Crisis. **5**, 6.
56. Abiocca F (1988) Opposing Conceptions of the Audience: The Active and Passive Hemispheres of Mass Communication Theory. *Annals of the International Communication Association* **11**, 51–80.