The worries of weaning: Newspaper reporting of infant weaning and its impact on dialogue in online discussion forums

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Abstract
Despite infant weaning being one of the most challenging aspects of parenting, there is uncertainty about the right time to start. This research aimed to understand the impact of newspaper reporting of weaning on parents, in particular, focussing on the coverage of a scientific report published in the British Medical Journal in 2011. Using a media analysis of weaning articles from UK national newspapers and the ‘Mumsnet’, Internet discussion forum, the analysis was able to explore how forum members had reacted to the reporting and embellished the communication of the weaning issue by adding their own personal advice and experience. The case study shows the role of discussion forums in science communication and how they can provide a new arena for studying audience effects.

Keywords
Communication, health, Mumsnet, online discussion forums, science

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**Introduction and background**

Infant nutrition is arguably one of the most worrying aspects of parenting. Experts agree that weaning, the transition time when parents stop exclusively feeding their infants on milk and move to introducing ‘solid’ foods, ‘… continues to cause more anxiety to mothers, nurses and doctors than almost any other issue in paediatric nutrition’ (Davies and O’Hare, 2004: 84). Parents often struggle to establish when to wean their infants and what foods they should begin to feed them on. Weaning too early, before the age of 4 months, is associated with increased morbidity (Wright et al., 2004) and the cessation of lactation (Dewey, 2001). Conversely, delaying the introduction of solids beyond the age of 6 months has been associated with increased risk of malnutrition (World Health Organisation (WHO), 2002a) and feeding problems (Northstone et al., 2001). Not surprisingly, therefore, research has found weaning to be one of the aspects of parenting, which mothers, and first-time parents in particular, find most challenging (Mikkelsen et al., 2007).

Over 10 years ago, the WHO (2002b) conducted an expert consultation on the optimal duration of breastfeeding, recommending exclusive breastfeeding for an infant’s first 6 months. In January 2011, a review of the scientific evidence was published in the *British Medical Journal* (Fewtrell et al., 2011) suggesting that the proposed time frame be reduced to 4 months: infants may be at greater risk of developing anaemia and food allergies if weaned after this time. However, this shift of scientific opinion has created high levels of uncertainty for parents.

The mass media has been shown to play a fundamental role in informing the public about health, science and technology (Holliman, 2004; Kjærgaard, 2010; Pellechia, 1997) and about scientific risks (Rowe et al., 2000). It is conceivable, therefore, that parents use these channels, alongside advice from health visitors, general practitioners (GPs) and other parents, to make sense of the weaning issue. Little is known, however, about the effect of media coverage on parents and the role of the reporting of weaning in parental decision making.

For many years, researchers have questioned the impact of traditional media on the public’s attitude towards health issues (Marks et al., 2007). In fact, for issues such as food safety, the print media has been recognised as the main source of information for the general public (Gauthier, 2011; Whaley and Tucker, 2004). The power of newspapers to inform has led researchers to argue that for many people their reality of science comes from what they read in the press (Nelkin, 1987), and the way that newspaper journalists frame the news creates a reality to which the public responds (Gauthier, 2011; Schudson, 2003). As a result of this, individuals often use information from newspapers to form opinions and make decisions (Pellechia, 1997).

The Internet has now added to this mix and is an interesting contemporary area for the communication of science and health issues (Artz and Wormer, 2011; Denecke and Nejdl, 2009; Malone et al., 2004; Shanahan, 2011), with the majority of today’s parents searching for both information and social support online (Bouche and Migeot, 2008; Diaz et al., 2002; Johansson et al., 2010; O’Connor and Madge, 2004; Plantin and Daneback, 2009; Sarkadi and Bremberg, 2005). Interestingly, many parents place high levels of trust in the health information they receive from the Internet (Eysenbach and...
Researchers believe that the online environment is having a considerable effect on science journalism (Fahy and Nisbet, 2011; Robinson and DeShano, 2011; Secko et al., 2011). A new mode of reporting termed ‘the “unfinished” science story’ (Laslo et al., 2011; Secko, 2009: 817) means online audiences are now able to get hold of a traditional news story, which once printed was deemed as ‘finished’, to keep the debate alive. The Internet has certainly created more opportunities for so-called ‘citizen learning’ (Krimsky, 2007), with science news no longer a ‘one-way street’ (Secko et al., 2011).

However, the danger of interest-driven or pseudoscience comments in forums is reflected in the decision to shut off the comments section by the magazine ‘Popular Science’ (2013). The role of media forums to engage the public is also questioned by research: a survey of 1801 adults to investigate the role of social media platforms like Facebook and Twitter found that ‘social media did not provide new forums for those who might otherwise remain silent to express their opinions and debate issues’ (Pew Research Centre, 2014).

Nevertheless, sites such as Mumsnet offer rich potential for research and augment the value of any media analysis since they also allow an examination of the potential effects of media reporting on a specific audience (Holliman, 2004; Pellechia, 1997). To date, there has been very little research on how discussion forums can influence scientific communication. The purpose of this case study is therefore to first analyse how the new guidelines for weaning reported in 2011 were ‘framed’ in UK newspaper coverage, that is, the way the news content was shaped and contextualised by journalists (Kjærgaard, 2010) and how forum users interpreted and responded to the messages about weaning in the press. In the second part of the study, we compared the newspaper reports and Internet forum comments for the Fewtrell study in order to understand the role discussion forums can play in science communication.

**Methods**

**Newspaper content analysis**

The units of analysis for the newspaper study were based on three types of information: basic data (such as newspaper type, date of publication, word-length and speciality of the author); reference in the text to scientists, scientific texts or previous studies; and reference to ‘frames’ (Nisbet and Mooney, 2007) – such as what types of foods to wean on, when weaning should start and the breastfeeding versus bottle-feeding debate.

A search of newspapers was carried out using the Nexis database (LexisNexis, 2011). The top nine UK newspapers were selected based on their readership figures (National Readership Survey, 2010). The newspapers include three tabloids (The Sun, Daily Mirror and Daily Star), two middle-market papers (Daily Mail and Daily Express) and four...
quality newspapers (*The Daily Telegraph, The Times, The Guardian* and *The Independent*) (Anderson et al., 2005). The search was run for a 12-month period from June 2010 to June 2011. ‘Wean!’ was used as a keyword in the search engine: the use of the ‘!’ symbol opens up the search to include any variants of the word wean, such as ‘weaning’ and ‘weaned’. Relevant articles were coded and entered into an SPSS (statistical analysis software) database (version 19.0), where analysis of the data took place. A randomly selected subset of 10 articles were double-coded and analysed to determine intercoder reliability, a measure of how much coders, working autonomously, code articles in the same way (Lacy and Riffe, 1996).

**Internet forum content analysis**

The parenting site ‘Mumsnet’ was selected as it has an active discussion forum, with archived messages and a powerful search engine and is by far the most visited and influential parenting site on the Internet (Pedersen and Smithson, 2010). The site is also increasingly being used as a rich source for research data on parenting (Gambles, 2010; Pedersen and Smithson, 2013). The site, created in the year 2000 by two UK mums, claims to have ‘nearly 4 million visits per month’ (Mumsnet, 2011). In the forum, members can start a ‘discussion’ on any topic or add a ‘post’ to an existing conversation. A range of keyword searches were run in the discussion board’s search engine in order to extract the relevant discussions, that is, wean(ing) and newspaper(s), wean(ing) and media, and wean(ing) and news. Archived discussions (including all their individual discussion posts) from the period 27 June 2010 to 27 June 2011 (the same period as the newspaper search for individual newspaper articles) were then located. A coding of the forum discussions was then conducted (Skea et al., 2008) using SPSS in support. The content analysis recorded basic data for each discussion, such as date, length and number of participants, as well as the different themes present in the posts. The discussions were double-coded to assess percentage agreement.

**Combined newspaper and forum analysis**

In order to compare newspaper articles covering the Fewtrell paper (2011) and Internet comments that respond to this coverage, categories were created to judge the adequacy of the science reporting based on the method of Schwitzer (2008): that is, how ‘accurate, balanced and complete’ they might be deemed. For each criterion, the article or online discussion was given a rating of ‘satisfactory’ or ‘unsatisfactory’. For example, if there was an exaggeration of risk or an inadequate explanation of the science, then the articles and comments containing any poor, distorting or misleading views would be categorised ‘unsatisfactory’. The classification of the newspaper articles and Internet comments was carried out by a science writer with a BSc in Biology and an MSc in Science Communication following the ‘science journalistic peer review’ method as described for the German ‘Medien-Doktor’ project (Anhäuser and Wormer, 2012). Rather than coding articles for analysis, this ‘health-news-review’ also used a system of categories (Table 1).
Results

Newspaper content analysis

The Nexis search found 46 relevant articles (see Figure 1) with a sharp peak in the reporting of weaning in January 2011. A total of 20 of the articles written between 14 and 18 January were a reaction to the BMJ paper on weaning (Fewtrell et al., 2011). At this time, all the quality newspapers and the Daily Mail covered the BMJ paper on weaning; however, the tabloids and the Daily Express did not.

Three smaller peaks of reporting also occur in March, April and May 2011. These were articles based on a range of scientific reports covering weaning and obesity, weaning and IQ levels, and weaning and food toxins. Interestingly, unlike the Fewtrell paper (which was covered by a range of publications), these reports were only picked up by single papers.

A total of 29 of the articles (63%) dealing with the weaning issue were from the quality papers. Almost a third of these articles came from The Telegraph newspaper. The middle-market papers had 7 articles on weaning (15%) and the tabloid papers had 10 articles (22%). The quality papers had a higher percentage of articles over 500 words
(48%), whereas the tabloid papers had a higher percentage of shorter articles (70%) for 101–500 words. There was a large spread in terms of where the article actually occurs in the newspaper, although weaning stories rarely made the front pages.

The majority of the articles were either news articles or feature articles (n = 18, 39% and n = 18, 39%, respectively), with a large proportion of the quality paper articles ‘news’ style articles (48%), whereas the largest proportion of the middle-market and tabloid articles were feature articles (71% and 70%, respectively). Although commentary articles were present in some newspapers, these were only 6 out of the total 46 articles (13%), and only 3 articles (7%) were ‘letters’ from readers.

Previous research has found that newspapers differ dramatically in their selection of topics and their narrative styles (Entwistle and Hancock-Beaulieu, 1992; Hilton et al., 2010). This was certainly the case in this research, as the following quotes from different papers demonstrate. The Daily Mail warns parents about the dangers of introducing solid foods too late:

Parents who wait until six months to wean their baby might not be giving their child the best start in life, according to health experts. (Daily Mail, 18 January 2011)

While a more measured tone is taken in The Daily Telegraph newspaper:

… a review conducted by the European Food Safety Authority concluded that complementary foods may be introduced safely between four to six months … (The Daily Telegraph, 14 January 2011)

The use of personal testimonies was also favoured in newspapers such as the Daily Mail, suggesting the power and persuasiveness of including personal stories in the light of the public’s mistrust of authority (Hilton et al., 2010).
Both the quality and the middle-market papers used specialised ‘health correspondents’ or ‘science journalists’ to report on the weaning issue: 54 per cent of the quality paper articles were written by experts in the health/science field: authors who are likely to have a better understanding of health issues than journalists with no specialism (Entwistle and Hancock-Beaulieu, 1992). However, in the tabloid articles, only two types of authors were found, either general journalists or well-known TV/media personalities.

The articles on weaning covered a range of different frames (Table 2). The time frame issue was covered by 55 per cent of the quality papers, whereas only 20 per cent of the tabloid articles covered this subject. Many of the articles however mentioned that there was a ‘risk’ to infants if they were not weaned at the correct time. Depending on the article, this health risk was obesity, poor nutrition, behavioural and IQ problems and so

| Table 2. Publication type and the main theme/frame of the weaning article. | Frequency | Percentage (%) |
|---------------------------------------------------------------|-----------|----------------|
| **Quality paper**                                             |           |                |
| Time frame issue                                              | 16        | 55             |
| Health issues                                                 | 5         | 17             |
| Behavioural difficulties/IQ levels                            | 1         | 3              |
| Contraceptive issues                                          | 0         | 0              |
| Food toxins/contaminants                                      | 2         | 7              |
| Food types                                                    | 1         | 3              |
| Breast versus bottle-feeding                                  | 1         | 3              |
| Other                                                         | 3         | 10             |
| **Total**                                                     | 29        | 100            |
| **Middle-market**                                             |           |                |
| Time frame issue                                              | 3         | 43             |
| Health issues                                                 | 1         | 14             |
| Behavioural difficulties/IQ levels                            | 1         | 14             |
| Contraceptive issues                                          | 0         | 0              |
| Food toxins/contaminants                                      | 0         | 0              |
| Food types                                                    | 0         | 0              |
| Breast versus bottle-feeding                                  | 2         | 29             |
| Other                                                         | 0         | 0              |
| **Total**                                                     | 7         | 100            |
| **Tabloid**                                                   |           |                |
| Time frame issue                                              | 2         | 20             |
| Health issues                                                 | 3         | 30             |
| Behavioural difficulties/IQ levels                            | 1         | 10             |
| Contraceptive issues                                          | 1         | 10             |
| Food toxins/contaminants                                      | 0         | 0              |
| Food types                                                    | 1         | 10             |
| Breast versus bottle-feeding                                  | 1         | 10             |
| Other                                                         | 1         | 10             |
| **Total**                                                     | 10        | 100            |
Articles that did not talk about ‘risk’ directly still used words such as ‘harm’ or ‘danger’ to imply that a risk was present. However, no articles put the ‘risks’ into context by providing any specific supporting data or figures, nor did they mention that the findings presented in Fewtrell et al. (2011) were from one single published review. A large proportion of the quality paper articles reported on the change in scientific consensus on the weaning issue (15/29), compared to 2/7 and 1/10 for the middle-market and tabloid articles, respectively.

There was also a clear difference in the way that the newspapers use background information to present the weaning issue. A total of 55 per cent of the quality paper articles based their articles on a scientific study that had recently taken place. This compares to 57 per cent of the middle-market articles but only 20 per cent of the tabloid articles.

**Internet forum content analysis**

A total of 12 separate discussions were found using the keyword search, which included posts that referred to the specific topic of weaning and its reporting in the newspapers. The number of posts associated with discussions ranged from 5 to 714 presented in Table 3. As the number of total posts was very large (over a 1000), each individual post was not recorded in the SPSS file. The aim of the content analysis was to identify how participants had reacted to the newspaper coverage of weaning and not just about weaning in general. Therefore, by reading through the entire 12 discussions, 112 comments that directly referred to the weaning issue in the context of newspaper reporting were identified and then analysed.

The number of participants in a discussion correlated with the length of the discussion: for example, the longest, entitled ‘Exclusive BF for 6 months may be harmful’ had 271 participants and the shortest, ‘Weaning age recommendation = confused’ had only 5. The common trend was that for short discussions (with less than 100 posts), there was very little actual dialogue between individuals. Instead, forum members tended just to participate by posting a comment and perhaps a reply. For the two longer discussions which had 184 and 714 posts, there was a lot of repeat participants and backward and forward dialogue between members. On average, the discussions that commented on newspaper reports of weaning lasted between 1 and 7 days. An exception to this was a discussion lasting almost a month entitled ‘How many people wait until the recommended six months before weaning and how many didn’t?’ Since this referred to individuals’ own experiences of weaning, the subject was less time-bound and so participants could add to the conversation over a longer period.

The six main themes/frames identified are shown in Table 4. For the intercoder reliability analysis, a simple percentage agreement was calculated: the results showed that the two coders agreed for 92 per cent of the coding.

The results of the content analysis showed that the most talked about topic was the inaccuracy of media reporting surrounding the weaning issue. The two longest discussions (Table 3) began directly with the topic of breastfeeding and weaning. This parallels the newspaper reporting, which often covers the breast versus bottle-feeding debate.

Of the 12 discussions, 8 were posted at the time of the release of the Fewtrell study and are direct reactions to the study’s findings and its coverage but soon digress onto the
press coverage of the issue. The other 4 discussions posted between February and May also make references to the Fewtrell study and the media reporting of it; although rather than being knee-jerk reactions, they use the study findings to give advice to other parents. Many forum participants made the point that the newspaper reporting of the weaning issue was inaccurate, in particular its association to the breastfeeding versus bottle-feeding debate:

It’s so frustrating the way that the media is turning [sic] this story into a one about breastfeeding. It’s just about what stage to introduce solids … whether a baby is breast or formula fed, surely? (Mumsnet, 14 January 2011: Discussion 6)

### Table 3. Results of the discussion search on Mumsnet.

| Discussion | Discussion title                                                                 | Date       | Participants | Posts | Length of discussion (days) |
|------------|----------------------------------------------------------------------------------|------------|--------------|-------|-----------------------------|
| 1          | To think the fuss over recent weaning headlines is a sad example of the huge amount of hypocrisy surrounding the breast V formula debate? | 13 January 2011 | 20          | 30    | 2                           |
| 2          | Would IBU to get consistent advice? ‘Babies “need solid food, not just breast milk”’, headline from today’s Times. | 14 January 2011 | 58          | 184   | 4                           |
| 3          | To think that cunting Cow and Gate with their ‘clever’ marketing about babies ‘needing iron’ and funding ‘research’ have sucked up the last 10 years of improving and supporting breastfeeding? | 14 January 2011 | 38          | 69    | 5                           |
| 4          | New Who advice on BF!!                                                           | 14 January 2011 | 271         | 714   | 7                           |
| 5          | tomme tippee teats and weaning                                                    | 14 January 2011 | 18          | 44    | 2                           |
| 6          | Exclusive BF for 6 months may be harmful                                           | 14 January 2011 | 23          | 52    | 1                           |
| 7          | How many people wait until the recommended 6 months before weaning and how many didn’t? | 15 January 2011 | 8           | 11    | 1                           |
| 8          | Has anyone else seen this?                                                        | 16 January 2011 | 10          | 13    | 1                           |
| 9          | To hate the conflicting info re when to wean your baby                            | 10 February 2011 | 5           | 14    | 3                           |
| 10         | Weaning age recommendation = confused                                             | 04 March 2011 | 10          | 22    | 4                           |
| 11         | to have tweeted this sweary tweet based on todays headlines?                     | 07 April 2011  | 5           | 5     | 1                           |
| 12         | in thinking the bf story in the news today                                        | 29 May 2011  | 36          | 49    | 25                          |
I KNOW the 4 month weaning thing isn’t an attack on BF, but the media coverage of it has been. However I think it is shameful the way the media has jumped on this and completely misinterpreted the article and is using it as an opportunity to bash breastfeeding. (Mumsnet, 14 January 2011: Discussion 3)

The inaccuracy of headlines was referred to frequently: an important observation since previous research on risk reporting has shown how headlines can set the emotional tone of an article and influence risk perceptions (Rowe et al., 2000):

Formula feeding mothers are consistently expected to put up with twisted headlines e.g. ‘formula causes obesity’, ‘breast fed babies are cleverer’ without a whimper when reality and common sense shows such headlines are totally ludicrous. (Mumsnet, 16 January 2011: Discussion 1)

The effects that the newspaper reporting would have on readers was referred to by some participants:

… the reactionary, attention grabbing headlines that have sprung up all over the place as a result of the study are missing the point and unfortunately an awful lot of people won’t read the whole report or won’t understand it and will just take snippets and headlines to be truth and fact. (Mumsnet, 14 January 2011: Discussion 12)

**Combined newspaper and Internet discussion analysis**

A total of 16 news articles and nine Internet discussions that mentioned the Fewtrell study directly were analysed. The rating system used in the analysis provided a consistent tool to evaluate the quality of the comments in Mumsnet with those of the newspaper articles. As Table 5 shows, just over a third of the newspaper articles and the Internet discussions contained adequate details about the Fewtrell study, that is, included information for readers to be able to find out who had carried out the study, where they worked and where the study was published.

The majority of the newspaper articles and the Internet discussions placed the new findings in context (69% and 89%, respectively). This meant they gave background to the reader about how weaning advice has changed historically:
Previously, the advice had been four months, but the Government had decided to change it to six months in 2003 after the World Health Organisation recommended exclusive breast feeding for the first six months of life. (Daily Mail, 18 January 2011)

The discussion of risk was lacking in any of the newspaper articles and was only present in a third of the Internet discussions. However, where risk was explained in the forum, there was often a very clear explanation:

It’s about relative risk. And the weight of evidence and scientific consensus from multiple studies is clear – b/f babies are far less likely to develop allergies. One study with three out of four authors funded by formula/baby food manufacturers does not change that. (Mumsnet, 14 January 2011: Discussion 3)

Over two-thirds of the Internet discussions included independent sources and mentioned a conflict of interest among the authors of the study. This was much lower in the newspaper articles (33%):

Declarations in the paper revealed that three of the four authors had been paid by baby food companies for consultancy work or research in the past three years. (The Independent, 15 January 2011)

The Internet discussions also contained more discussion of the study methodology, how the study was carried out, how good the data was and the quality of the evidence (66%): no newspaper articles covering the Fewtrell study did this:

I’ve read through that synopsis of the study. What surprised me was the lack of caveats in the conclusions, even though as I was reading through the synopses of the studies which were being considered, I could see obvious social factors which would affect outcomes. (Mumsnet, 14 January 2011: Discussion 6)

It is possible that without the journalist constraints that apply to traditional news media, the forum participants had more time to research the study and, within the discussions, had more space to explore points in detail and could be more critical of the results.

| Criteria (Did the story adequately …) | Newspaper article (n = 16) % satisfactory | Internet discussion (n = 9) % satisfactory |
|--------------------------------------|------------------------------------------|------------------------------------------|
| Gives details about the Fewtrell study on weaning | 38                                       | 33                                       |
| Places the new findings in context | 69                                       | 89                                       |
| Discusses risk | 0                                       | 33                                       |
| Seeks out independent sources and discloses potential conflicts of interest | 33                                       | 66                                       |
| Reviews the study methodology or the quality of evidence | 0                                       | 66                                       |
Table 6. Word count of analysed newspaper articles and Internet comments.

| Newspaper article no. | Word count | Internet comment no. | Word count |
|-----------------------|------------|----------------------|------------|
| 16.                   | 1192       | 1.                   | 851        |
| 19.                   | 1055       | 2.                   | 1958       |
| 20.                   | 686        | 3.                   | 13,164     |
| 22.                   | 1458       | 4.                   | 5310       |
| 24.                   | 949        | 5.                   | 1203       |
| 25.                   | 653        | 6.                   | 64,050     |
| 26.                   | 1436       | 9.                   | 1169       |
| 28.                   | 499        | 10.                  | 447        |
| 29.                   | 634        | 12.                  | 3072       |
| 30.                   | 254        |                      |            |
| 31.                   | 828        |                      |            |
| 33.                   | 575        |                      |            |
| 34.                   | 550        |                      |            |
| 35.                   | 551        |                      |            |
| 36.                   | 924        |                      |            |
| 37.                   | 346        |                      |            |
| Median                | 670        | 1958                 |            |
| Data range            | 1112 (346–1458) | 63,603 (447–64,050)  |            |

The lack of thorough reporting, the uncertainty in the media messages and the scientific inaccuracy found in this study, echoes the findings of prior studies on science communication by...
the media (Gauthier, 2011; Pellechia, 1997; Rowe et al., 2000). Davidson and Wallack (2004) conclude that health reporting in the news is ‘… often superficial, confusing, or inaccurate’ (p. 116), while previous research has highlighted a wide difference in reporting by the various genres of newspapers (Entwistle and Hancock-Beaulieu, 1992). The results from this study suggest articles on weaning in the tabloid and middle-market papers lacked a level of scientific detail and balance when compared to the quality newspapers. The topics covered by the various newspaper genres were also very different. The popular press preferred sensationalised stories – focussing on the direct health effects of weaning (i.e. obesity and behavioural problems) or on the breast versus bottle-feeding debate. In fact, none of the tabloid articles were written by specialist science/health reporters.

One of the major flaws in science communication is in the reporting of risk (Friedman et al., 1996). In this study, newspapers reported the dangers that could occur to infants if they were not weaned at a certain time but the reporting of weaning displayed many of the flaws of previous risk reporting, including not placing the risk in its proper context and not using the correct linguistic tools, such as risk comparisons to describe the level of risk to infants (Rowe et al., 2000; Wilkins and Patterson, 1987). Indeed, in the comparison between the newspaper articles and the Internet forum, no newspaper article discusses risk adequately, in comparison to over a third of the forum discussions. An interesting result as to date, researchers know very little about how risk information for health issues is conveyed in online forums.

The use of the Mumsnet discussion forum to look at the effects of newspaper reporting was highly informative. The basic content analysis identified a range of themes, with the most prominent being the inaccuracy and the sensationalisation of the newspaper reporting of infant weaning. Parents, it seems, are acutely aware of the lack of thoroughness in reporting that the media analysis identified. The individual comments by forum users, though summarised here, were very rich in content, giving an insight into how users felt about the newspaper reporting of the weaning issue and are not simply passive recipients of media messages (Chung, 2011) but use content as ‘triggers’ to discuss aspects important to them (Laslo et al., 2011). Since most of the comments were angry, reactionary comments to the newspaper articles (in particular newspaper headlines), it seems that the effect of the newspaper reporting on users was to infuriate, rather than inform. Interestingly, many of those involved in the discussion were concerned about the effect of the newspaper reporting on parents other than themselves.

The articles and discussions placed the topic in context and mentioned the background of changing evidence around when to wean. In particular, the Internet discussions added personal information about the weaning times selected by parents, their experiences with this (and potential health outcomes), though it should be remembered that this was largely personal experience rather than scientific evidence. These personal accounts of weaning would potentially assist the participant to make their own judgements. Shanahan (2010) found that comments to online news articles are rich with both personal and scientific expertise. This is important since ‘… respondents interpret and contextualize media reporting on the basis of their prior knowledge and experience, and where possible, in the context of their everyday lives, in terms of their citizen knowledge, or citizen expertise’ (Holliman, 2004: 124).
No newspaper articles adequately discussed risk, the study methodology or the quality of the evidence and only a third of the articles used independent sources and disclosed potential conflicts of interest meaning that opportunities were missed to contextualise the argument. In comparison, two-thirds of the forum discussions used independent references and disclosed sources of conflicts of interest. When compared to the newspaper articles, the discussions also included references and hyperlinks to official reports or websites.

Schwitzer (2008), who found high levels of inadequate reporting, claims this type of coverage ‘raises important questions about the quality of the information’ that consumers receive from the news media. Schwitzer (2008) found that only 35 per cent of news stories were satisfactory for their discussion of study methodology and the quality of the evidence, issues that he claims only a trained health journalist could be expected to understand. In this study, the majority of news articles were not written by specialist reporters. Mumsnet participants are also not necessarily trained scientists (although it is possible that some forum contributors had science and medical backgrounds or were professionals in such fields). However, in comparison to the newspaper articles, 66 per cent of the Internet discussions referenced independent sources and referred to a conflict of interest, as well as reviewing the study methodology and the quality of the evidence.

Internet forums hold a rich source of information about the public’s beliefs and opinions, but there were limitations to the methods used in this study. Participants were probably not demographically representative of the wider population (Laslo et al., 2011), Mumsnet often being perceived to attract middle-class parents in particular (Pedersen and Smithson, 2013). It is therefore dangerous to make generalised conclusions about the wider parent population as a whole. The data are also limited to a specific media report and should also not be extrapolated to make conclusions about the quality of information in the forum for any other issues or indeed for similar forums on other websites.

Conclusion

The main aim of this study was to discover how the media coverage of infant weaning affects parents using one example of a discussion forum. Bringing together the results of the media and Internet analyses, we are able to draw some interesting conclusions about how parents, in this context, used a forum to respond to newspaper articles.

What this research shows is that although the science of weaning is poorly communicated at times by the press, in the context of this case study, forum users are using this information to generate online discussions, which embellish the initial reporting and enrich the scientific discussion. Through these online discussions, caregivers are becoming potentially more informed (through interaction with their peers) about the issues involved, with the forum effectively operating as a ‘boundary’ between science and journalistic representations, and public perspectives (Shanahan, 2011). Previous research by Dunwoody and Peters (1993) has demonstrated how people use the mass media to find out about the nature of a scientific risk but then use personal contacts ‘to find out how much they themselves should be concerned about that particular risk’ (p. 309). Could it be that parents are using Mumsnet as a vehicle to better understand the science behind weaning and how it affects them?
The effect that the online environment is having on science journalism is echoed in the findings of this study; the forum discussions drew out information about the Fewtrell paper that had not been mentioned in any of the newspaper reports, such as the competing interests of the article authors. The Mumsnet forum analysis therefore reveals how discussion forums are part of the evolving relationship between science and health journalists and their audiences.

The results of this case study can assist scholars to understand how science is communicated through the media to a particular audience. It can also give an insight into how the public can be engaged in a scientific debate through the use of an Internet forum. We have also seen evidence of science communication occurring in Internet forums, with discussions of risk, use of independent sources and analysis of study methodology. Further research is needed, however, to continue to explore the role of Internet forums in allowing parents to make sense of science and health communication through the media.

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