

Misleading health reports in the mainstream media

A French team studied the coverage English-language newspapers afforded to scientific studies on the association between 12 diseases (including depression, Parkinson's disease and breast cancer) and lifestyle factors (e.g. smoking or eating meat) or other factors, such as genetic associations (1). The authors identified 4723 studies and 306 meta-analyses on these associations. Then, using an international database of newspaper articles, they found that 156 of these studies and 5 of the meta-analyses had been covered in one or more articles (1561 articles in total) (1).

Initial scientific publications on a particular topic were more likely to receive newspaper coverage than subsequent publications on the same topic. Initial publications with "null" findings (e.g. reporting no association between a disease and a hypothesised risk factor) were never covered. Subsequent publications or meta-analyses refuting the findings of an initial publication that had previously received media attention were almost never reported in newspapers (1).

Newspapers appear mainly interested in studies with "positive" findings and those reporting an association with a lifestyle risk factor. This gives a very biased picture of research results, since two-thirds of the results of initial studies are not confirmed by later research (1).

Biased commentaries. Another study looking into how the mass media present new medical research examined the comments accompanying the reported results (2). The authors studied the media coverage of clinical studies published in seven high-impact journals (*Lancet*, *BMJ*, etc.) during the first three months of 2013 (2).

Comments from outside sources accompanied 104 of the 591 media reports studied. 25% of these commenters had no relevant academic or clinical expertise in the subject addressed. The commenter had an academic conflict of interest in 56 cases (disclosed in the article in 25 cases) and a financial conflict of interest in 33 cases (disclosed in 11 cases). A strong correlation was observed between the commenter's enthusiasm for the study's findings and his or her conflicts of interest (2).

The mass media would better serve the public by relying less on commenters with a vested interest in plugging the results.

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Selected references from Prescrire's literature search

- 1- Dumas-Mallet E et al. "Poor replication validity of biomedical association studies reported by newspapers" *PLOS ONE* 2017; **12** (2): e0172650: 15 pages.
- 2- Wang MTM et al. "Conflicts of interest and expertise of independent commenters in news stories about medical research" *CMAJ* 2017; **189** (15): 553-559.