

Grabbing the headlines - science versus sensationalism

Prof Marie Murphy FBASES is new physical activity for health columnist for The Sport and Exercise Scientist.

Murphy's Law #1 - Use editorials to foster evidenced-based debate

Following in the footsteps of Profs Mutrie (Nanette's Notes) Foster (Charlie's CHuTzPAH) and Buckley (John's Reality Checks) was always going to be a challenge. As I struggled to select a topic not previously covered by my learned colleagues - one popped up online. Surfing the web while waiting in an airport lounge I stumbled across the BBC headline "You can't outrun obesity."

My heart sank as yet another media story seemed to be sending more contradictory messages about physical activity to an already confused public. Having fallen victim to the media 'spinning' the findings of my own research or reducing it to sound bites that attract attention but are not loyal to the actual paper - I first felt some sympathy for the authors and journal editors. I assumed they had been 'caught-out' by an uninformed health correspondent misreporting, misrepresenting and sensationalising their carefully worded paper on the conclusions from a robust study or evidence-informed commentary.

My sympathy was short-lived however when I read the editorial and the press release that had been sent to media outlets to publicise the piece by Malhotra and colleagues (2015) entitled "It is time to bust the myth of physical inactivity and obesity: you cannot outrun a bad diet" (<http://bjsm.bmj.com/content/early/2015/05/07/bjsports-2015-094911.full>). In this case, we cannot blame sloppy journalism because the article title and the press-release were equally misleading and designed to encourage public interest through sensationalism rather than science. Like many who read the editorial, I soon realised that it was little more than an 'opinion piece' disguised as a 'peer-reviewed editorial' and given credence by inclusion in a journal, held in high esteem for the quality of scientific evidence and debate it published.

Entirely unsupported statements such as 'However, physical activity does not promote weight loss' and attention grabbing headlines such as 'the myth of physical activity' may attract media attention but they do little to enlighten the public or convince others outside our field that we understand the importance of evidence in scientific study. Aside from the fact that physical activity is a key contributor to energy expenditure and energy balance, the authors failed to consider high quality evidence from systematic review and meta-analysis, which indicates that weight loss is increased when diet and physical activity are combined (Johns *et al.*, 2014).

The authors probably got what they intended - media attention. While media exposure for our ideas and findings is an important part of dissemination to a wider audience beyond our discipline and indeed beyond academia - if we want to retain credibility we need to be careful not to resort to the type of hyperbole, and sensationalism, which ultimately undermine confidence in our field. Dr Ben Goldacre (an invited keynote at BASES Conference 2015) has called for academics to be accountable for exaggerations about their work in press releases (Goldacre, 2014). The release accompanying this paper illustrates why this suggestion might be appropriate. Ironically, the authors accuse the food industry of corrupting public health messaging. I can't think that their editorial has contributed anything helpful to public health messaging.

On a positive note the article provoked discussion and debate on the role of physical activity in achieving and maintaining a

healthy weight. It resulted in balanced and evidenced-based commentary from leading scientists in the field including comment via the recently established Global Energy Balance Network (Blair, 2015), an open letter to the BBC Health Correspondent by the Deputy Director of the Centre for Evidenced Based Medicine (Mahtani, 2015) and well-informed expert reaction (Science and Media Centre, 2015). It also led to more general commentary on how often research and science often confuse rather than inform the public (St Clair Gibson, 2015), which concluded with a cautionary note to journalists and the public:

"The chance for a scientist's ego to be more involved than it should is made even easier in modern time with the advent of the internet and publication vehicles beyond that of the routine scientific peer-review process ... Therefore, all scientific information received by the public from scientists, particularly those scientists and clinicians that 'shout the loudest', should be taken with a strong 'pinch of salt' and heard with caution."



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