**Regulation of public engagement in science - perhaps a step too far?**

**A response to Bolland and Grey.**

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The issue of scientific truth is much debated, and over recent years, reporting of clinical trials has become highly formalized; appropriate focus is placed on primary rather than secondary outcomes. In their recent letter[1](#_ENREF_1), Bolland and Grey report the press coverage given to a secondary (albeit pre-specified, mechanistically supported and statistically significant) finding from our MAVIDOS trial[2](#_ENREF_2) of vitamin D supplementation during pregnancy. Their diligence in systematically reviewing the media reports is laudable, but we question their conclusions. The interpretation of scientific data, as with most epistemological information, is rarely a matter of “truth” and “falsehood”; rather, belief and subsequent action are seen by most philosophers of science to rest upon both subjective and objective synthesis, with the data placed in a historical, social and biological context. Any notion that our trial definitively answered the policy question as to whether vitamin D supplementation in pregnancy should (or should not) be recommended is simply misplaced. Indeed, the interpretation of our findings differed widely, even within our own trial team. The press releases provided, and the investigator quotes appended, were simply a reflection of the breadth of this inferential spectrum.

We were particularly interested that your correspondents have seized upon this particular opportunity to strait-jacket freedom of expression within scientific discourse. They are certainly no strangers to media interpretation of secondary findings themselves, having published an extensive series of articles over an eight year period suggesting that calcium supplementation increases the risk of myocardial infarction[3-5](#_ENREF_3). Selected findings from these studies, based on secondary, usually self-reported outcomes, which were frequently not pre-specified in the original trial protocols, have been widely publicized and are highly likely to have influenced health-care practitioners. Conversely, potential protective effects of similar magnitude and (usually similarly borderline) statistical significance, have been ignored.

The solution to this issue is far from clear, particularly given competing pressures from funders and institutions to disseminate research findings widely and to engage with media and the public. We agree with the principle that the primary outcome should be clearly stated in a press release, but wonder whether it is necessary (or indeed practicable) to insist that this is slavishly mentioned in all investigator quotes. While we whole-heartedly support the accurate media reporting of research, we struggle with the implication that a statistically significant primary outcome is “truth” and that a fascinating, pre-specified, statistically significant and highly biologically plausible secondary finding should effectively be discounted as “falsehood”. For those in the business of discovery science, such results often provide fruitful avenues for further research.

**Disclosures**

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