

EDITORIAL



Clinicians: beware of “spin”

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- Dr Giusy Rita Maria La Rosa – University of Catania, Italy

And in celebration of the fantastic expertise on our Editorial Board, and to ensure that the Board’s voices are heard and the concerns and interests of their regions are appropriately aired, this year we will be publishing Guest Editorials by various members of the *EBD* Editorial Board – the first of which is written by Reint Meursing Reynders below.

WHAT IS SPIN AND WHAT ARE ITS CONSEQUENCES?

Being able to critically appraise the literature is one of the key pillars for successful evidence-based practice. This is important, because the majority of dental research publications are of low or very low quality¹ and many incorporate some form of spin^{2,3}. Spin, i.e., reporting practices that distort the reporting and interpretation of research findings in scientific publications, can mislead healthcare providers and patients in making their clinical decisions^{4,5}. Spin can also influence clinical practice guidelines, health policies, and how money is invested in research. This phenomenon could expand to a larger scale when publications with spin are disseminated to the mass media. Spin is not easy to identify and can come in many forms and severity and has been classified into three main categories, i.e., (1) misleading reporting, (2) misleading interpretation, and (3) misleading extrapolation of research findings⁶. Recommendations for clinical practice not supported by research findings have been rated as the most severe type of spin in systematic reviews and meta-analyses⁶.

WHY DOES SPIN OCCUR?

Spin can be both intentional and non-intentional but it is often difficult to show that it was intentional⁷. Spin could be the result of a lack of understanding and training among researchers, peer reviewers, and editors, and insufficient guidance for identifying and avoiding it. There is convincing evidence that statistically significant results are more likely to be published^{8,9}. In the context of the competitive ‘Publish or perish’ environment researchers could therefore be tempted to distort their reporting and interpretation of non-significant outcomes in order to boost their number of publications. This hypothesis was confirmed in a systematic review of biomedical literature showing that the presence of a non-significant primary outcome was significantly and positively associated with spin⁵. However, the same review⁵ also found inconclusive associations between the presence of spin in research studies and sources of funding.

WHAT IS THE PREVALENCE OF SPIN AND IN WHICH PARTS OF THE MANUSCRIPT IS IT FOUND?

Spin can occur in various sections of a manuscript. Spin in the abstract is particularly damaging, because most users of research

NOTE FROM THE EDITOR, LIZ KAY

We have been delighted with the growth of *Evidence-Based Dentistry (EBD)* over the past few years. Not only have we widened our scope to include peer-reviewed systematic reviews, but we have also broadened our readership and increased our international profile. To celebrate and reflect these changes and to ensure that we adequately represent those parts of the world which are increasingly productive in the field of dental research, we are pleased and proud to welcome four new our Editorial Board:

- Professor Neeraj Gugnani – Dental College Yamunanagar, India
- Dr Parthasarathy Madurantakam – Virginia Commonwealth University, USA

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articles exclusively read abstracts or have access to abstracts only. Meta-research studies on spin showed that it was highly prevalent in abstracts of biomedical trials (median 57%, range 10–84)⁵. High prevalences of spin were also found in various fields of dentistry, i.e., respectively 31% (23/75)³ and 62% (29/47)² of spin in abstracts of dental RCTs and 78.8% (37/47) in their full texts². Even top general medical journals are infested by spin, i.e., at least one type of spin in 94% (185/196) of the abstracts and in 67% (131/196) of the full texts of systematic reviews of interventions¹⁰. The same authors in another study¹¹, assessing 2025 RCTs and 551 systematic reviews, even recommended not to make clinical decisions based on what is written in the abstracts of health care research.


WHAT ARE THE STRATEGIES TO ADDRESS SPIN?

Ideally spin is identified and deleted in the pre-publication phase by the pertinent authors, peer reviewers, and editors. Strategies to address spin include (1) increasing the awareness among these stakeholders and understanding its severeness and consequences, (2) making not only authors responsible for avoiding spin, but also reviewers and editors⁷, (3) developing guidelines to identify and avoid spin, (4) AI-assisted peer-review, and (5) hiring additional editorial staff specialised in spin. After publication a clean-up of manuscripts with spin can be led by similar editorial teams and can be conducted through corrections and retractions. Although several of these methods have been tested, many are costly, and there is still little evidence which ones are truly effective. Further, many of these strategies are difficult to implement because of poor reporting and biases in manuscripts and because of insufficient data sharing. For example, a recent cross-sectional study showed that dental researchers rarely (1.5% 112/7509) shared their data¹².

CONCLUSIONS

Clinicians should be aware of the high prevalence of spin in dental research and the potentially misleading consequences for their patients. Further, they should not base their clinical decisions on just reading abstracts, because few are without spin. Instead, clinicians should carefully read and critically appraise the full texts of research studies and assess the pertinent protocols and supplementary files. To be able to do this, they need professional training in critical appraising and in the identification of spin.

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