Funnel plot of 26 reports on publication bias, with reported effect as dependent variable

excluded 148 studies because they gave no original data. All remaining 26 were included in the analysis (see bmj.com).

We used a funnel plot to evaluate reports for publication bias. In a funnel plot the effect size is plotted versus a measure of its precision, such as sample size. With increasing sample size, random variations of the effect are smaller. Thus, data from several studies are expected to be symmetrically distributed in a funnel shaped area of the plot if no publication bias is present. Conversely, an asymmetrical funnel plot indicates a biased study sample.⁵

We plotted effect size versus sample size (figure). The effect is the ratio of the odds of a positive study being published to the odds of a negative study. We transformed reported relative risks into odds ratios. We did not transform hazard ratios. The vertical line indicates no publication bias; 23 of 26 studies report preferential publication of positive results.

The median reported odds ratio is 2.3, indicating preferred publication of positive results. The sloping line results from a regression with the reported effect as dependent variable. Its slope does not differ significantly from zero ($P = 0.13$)—that is, the asymmetry of the data is not statistically significant.

Comment

We found no evidence of publication bias in reports on publication bias. But, with just 26 studies, the

power to detect asymmetry in a funnel plot was low.⁵ Furthermore, the definition of the terms “positive” and “significant” is non-uniform and sometimes rather arbitrary in the studies reinvestigated here. For example, Dickersin (see bmj.com) used the definition “studies reported to have statistically significant findings were combined with those reported to have findings of great importance. Together they are referred to as ‘significant’ and are contrasted with the remainder, which are referred to as ‘not significant.’”

Most data on publication bias were recorded retrospectively and lack prospective registration, as does the present analysis. Prospective and registered studies on publication bias are needed.

What is already known on this topic

Studies estimated to have publication bias seem more likely to be published at all, earlier, and in journals with higher impact factors; as a consequence effects are often overestimated

What this study adds

These findings do not indicate publication bias in reports on publication bias

Contributors: Both authors developed the design of this review, did the literature search, and analysed and interpreted the trials. The article was jointly written by both authors. H-HD is guarantor.

Competing interests: None declared.

Funding: Unna Stiftung, Düsseldorf, Germany.

Ethical approval: Not needed.

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(Accepted 19 April 2005)

doi 10.1136/bmj.38478.497164.F7

A memorable doctor

Alastair Short was my trainer in general practice. Tragically, he died in a climbing accident, but I had occasion to find myself reflecting about him recently. On entering my consulting room, I found my next patient sitting behind the desk in what could be considered “my chair.” I recalled a time over coffee when Alastair had laughingly told us of a similar experience that he had had.

Without drawing the patient’s attention to what could otherwise have been a potentially embarrassing situation, he conducted the consultation from what would normally be the patient’s chair. Alastair told us that it had given him a different perspective on the role of the patient—patient’s hopes, fears, and expectations became just that little bit easier to appreciate.

I remember at the time dismissing his comments—perhaps because I was concerned that the removal of the “security blanket” of my familiar domain could expose some inherent weakness or perceived loss of status. However, when faced with the same situation myself, it made sense to carry on in the “reverse positions.” Alastair was right: the consultation went well, and the patient left seemingly contented.

This experience taught me two valuable lessons. Firstly, that we sometimes need to shake ourselves out of the repetitive, rote nature by which we work, even if only briefly. Secondly, in an ever more demanding environment in medicine the expectations of the patient remain paramount.

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