How many scientists fabricate and falsify research?



Dr Rolf Vollmer

_"The frequency with which scientists fabricate and falsify data, or commit other forms of scientific misconduct is a matter of controversy. Many surveys have asked scientists directly whether they have committed or know of a colleague who [has] committed research misconduct, but their results appeared difficult to compare and synthesize."

"To standardize outcomes, the number of respondents who recalled at least one incident of misconduct was calculated for each question, and the analysis was limited to behaviours that distort scientific knowledge: fabrication, falsification, 'cooking' of data, etc. Survey questions on plagiarism and other forms of professional misconduct were excluded." Twenty-one surveys were included in the systematic review and 18 in the meta-analysis.

While I am familiar with reports of scientific misconduct, I was shocked about the high occurrence in medicine and pharmacy reported in Fanelli's meta-analysis of these surveys—the first of its kind: "A pooled weighted average of 1.97 % (N = 7, 95 % Cl: 0.86–4.45) of scientists admitted to have [having] fabricated, falsified or modified data or results at least once—a serious form of misconduct by any standard—and up to 33.7 % admitted [to] other questionable research practices. In surveys asking about the behaviour of colleagues, admission rates were 14.12 % (N = 12, 95 % Cl: 9.91–19.72) for falsification, and up to 72 % for other questionable research practices. Meta-regression showed that self reports surveys, surveys using the words 'falsification' or 'fabrication', and mailed surveys yielded lower percentages of misconduct. When these factors were controlled for, misconduct was reported more frequently by medical/pharmacological researchers than others."

The study cited above should make us consider all we read carefully. Especially with the development of new materials (for bone replacement, for example), we should always critically examine the current research and determine whether one can actually trust the evidence. For each of us, we need to ensure that our decisions are for the benefit of our patients and that they do not make them test subjects.

In this regard, the DGZI (German Association of Dental Implantology) offers you up-to-date training opportunities, such as the recently completely redesigned implantology curriculum and the presentations at our annual meetings (our next annual meeting is on 26 and 27 September in Düsseldorf), as well as critical, unbiased, objective information on companies and products.

We hope you will enjoy reading our current implants international magazine of oral implantology.

Yours faithfully,

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Dr Rolf Vollmer