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## Investigating allegations of scientific misconduct

Journals can do only so much; institutions need to be willing to investigate

Papers pp 266, 267 and Education and debate pp 281, 288 In this issue we take the unusual step of publishing an "expression of concern" (p 266)<sup>1</sup> about a paper the *BMJ* published in 1992,<sup>2</sup> together with an account of our attempts to resolve the suspicions about this and other papers written by the author, Dr Ram B Singh of Moradabad, India (p 281).<sup>3</sup> The *BMJ*'s expression of concern coincides with a similar expression about another of Singh's papers in this week's *Lancet*.

As White describes in her article,<sup>3</sup> doubts about the validity of the data in Singh's 1992 paper arose soon after we had published it—when Singh sent us a succession of other studies. The reviewers of the subsequent papers alerted us to discrepancies in the data, and to doubts about Singh's work that were already well known among researchers into diet and coronary heart disease.

What should journal editors do when confronted with such doubts? In the past, we would simply have rejected the paper. But in the wake of prominent cases of scientific misconduct in the United States in the 1970s and 1980s,<sup>4</sup> journal editors began to recognise that they had an obligation not to ignore such doubts, an obligation now set down in the Committee of Publication Ethics code of conduct for editors.<sup>5</sup> In practice there's a limit to what journals can do-because they have neither the resources nor the authority to conduct investigations to resolve suspicions about data. Yet they are, as Smith points out,6 in the position of "privileged whistleblowers." Privileged because it is often their expert peer reviewers who first raise the suspicions about odd looking data in a research study; because they can ask authors for raw data and ask them to explain discrepancies (which may remove or strengthen the existing doubts); and because they can then ask a legitimate authority (such as an employer, university, or funding body) to investigate.

The problems arise when there is no authority or the authority doesn't see it as its task to investigate. In the case of Singh, over a decade ago, Richard Smith, then editor of the *BMJ*, tried to find an authority in India that would investigate and resolve the doubts over Singh's work, but no institution would take on the task. He also commissioned reports from subject and statistical experts on Singh's unpublished and published papers and an analysis of the raw data of one of the submitted studies—activities that took a long time and are beyond the resources of most journals.

In the end—and in the face of requests from other researchers that the journal should "do something"—the *BMJ* decided that the only course left to it was to publish an account of the suspicions and the failed attempts to

have them resolved.<sup>3</sup> We also publish this week the results of the analysis the *BMJ* commissioned on the raw baseline data from one of the papers submitted to the *BMJ* but not published by it (p 267).<sup>7</sup> The authors of this analysis conclude, "Several statistical features of the data from the dietary trial are so strongly suggestive of data fabrication that no other explanation is likely."

We think the questions raised about Singh's data are sufficient to cast doubt on the validity of the paper we published in 1992—hence our expression of concern<sup>1</sup>—and indeed on many other papers that he has published (see bibliography on bmj.com). And we think that other researchers and systematic reviewers need to know about these doubts. But the doubts are unresolved, and the situation therefore remains unsatisfactory—for researchers, for the journals that have published his articles, for Singh's coauthors, and, not least, for Singh himself.

Although the *BMJ* may have done more in this case than many journals with lesser resources, it has still taken us over 10 years to try to resolve the issue. This fact reinforces our belief that journals cannot resolve suspicions on their own. The cases in the US in the 1970s and 1980s led to the setting up of the Office for Research Integrity, specifically to support institutions in investigating allegations of research misconduct.<sup>8</sup> Denmark, followed by other Scandinavian countries, also set up a national organisation to support institutions in investigating allegations of misconduct.<sup>9</sup> Calls for a similar body in the United Kingdom<sup>10 11</sup> are at last being answered: Universities UK, the Department of Health, and the NHS are working together on a framework to establish a panel for research integrity.

Nevertheless, even with willing institutions and national bodies the problems don't go away. Research is international and bodies in one country may have no authority over researchers in another. Institutions find it difficult to act once a researcher no longer works for them, as happened in the case of R K Chandra, about whose work suspicions were aroused when he submitted a paper to the *BMJ* in 2000, and who went on to publish extensively elsewhere.<sup>12</sup> As Smith explains on page 288, the Chandra story also illustrates the problem about what to do about a researcher's other papers. Investigating the "index case" of suspected misconduct is hard enough but is only the beginning. A finding that one research study is invalid raises the question about the rest of that author's work.<sup>6</sup>

In the Chandra case it was a journal, *Nutrition*, that decided to retract Chandra's article—on the basis of

BMJ 2005;331:245-6

245

eight specific substantial doubts.<sup>13</sup> It did this partly because Chandra's university was unable to investigate further when Chandra failed to provide raw data and then resigned.<sup>12</sup> But doubts now remain about Chandra's other studies, and the fact that these have not been resolved has already caused problems to meta-analysts.<sup>14</sup> These papers exist in scientific limbo.

The stories of Singh and Chandra are sorry tales, with no clear resolution. What more can journals do when their attempts to get someone else to investigate fail? Some researchers and editors argue that journals should keep collective confidential "black lists" of suspected papers and authors. But the sheer number of journals makes this unreliable; more seriously, it would imply someone was guilty until proven innocent-with a worrying lack of due process. Others suggest that journals should ask authors to deposit a copy of their dataset in a secure archive so that data could be audited if questions arise. But that too demands an infrastructure that doesn't exist. Perhaps rather than waiting for definitive proof, journals should in future be more ready to share their concerns about published papers, using the mechanism we use today-the publication of an expression of concernwhere they have reasonable grounds to believe that serious questions exist about a paper. The expression of concern does not resolve the suspicions but it alerts researchers, and in particular systematic reviewers, to doubts about the studies. And it may in turn prompt an

organisation with the capacity and standing to take the action necessary to do the necessary investigations.

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## Tackling the political determinants of global health

Is essential if we want to abolish poverty

This month sees the launch of an "alternative world health report," a document that will from now on appear every two years.<sup>1</sup> For the first time the institutions charged with improving global health are held accountable by the collective view of a coalition of civil society organisations reporting a clear message: the crisis in global health is not a crisis of disease, it is a crisis of governance.<sup>2</sup>

In tune with other citizens' movements for global social justice, this report argues that we have reached a stage in the history of public health where we can no longer accept profound inequities in access to health and treatment around the world. The report concludes that poverty and the lack of resources for the health of the poor are the key factors that hinder progress in global health, but it does not restrict itself to call for more charity. Instead the world needs a new policy model based on entitlement, in which good health is an integral part of social, economic, and cultural rights and citizenship and is ensured as a global public good. Achieving this will depend on an accountable mechanism for global governance and a strengthened public sector at all levels.

The alternative world health report scrutinises the conduct of global organisations—such as the World Health Organization, the United Nations Children's Fund (UNICEF), and the World Bank, global trade regimes, transnational corporations, and the rich nations-and their approaches to aid and debt relief. It underlines that the global regimes that support the international system of finance and trade need to be balanced by a global social contract that benefits people. It analyses how international organisations and donors have contributed to the current crisis and that many national governments have not prioritised population health. Critical processes are the redirection of global health functions from interstate mechanisms to a fragmented group of actors; the discussion of major health issues in forums (trade, agriculture, intellectual property, security) to which the public health community has little access; a commercialisation and privatisation of global health, which introduces a biomedical and technological bias and often stands in the way of building sustainable health systems.

The alternative world health report proposes that the current crisis of governance is provoked by the rich nations wanting to shape the international world order to their image—such a view lets some developing nations, particularly those that have become global players in their own right, get away too lightly. Also the report presupposes too easily that a more "equal" distribution of power in the international system would lead to a greater adherence to human rights and a greater commitment to equity—the ideological divergence in the current global system is too large and too