



SLMA Guidelines on science and health communication for Scientists and Researchers 2007



Media Committee SLMA



Acknowledgements

Why it matters

Why does it matter how health and science issues are reported?

It matters because misleading information is potentially dangerous: it can even cost lives.

- A natural and inevitable tension exists between journalists and groups of professionals whose activities are the subject of widespread publicity.
- No-one expects journalists and politicians always to agree on the way politics should be reported; some difference of perspective and emphasis between journalists and the science community is similarly inevitable.
- There is, however, a significant amount of common ground. All responsible journalists and all responsible scientists can agree, without prejudice to their editorial and professional freedoms, that the general public has the right to accurate information on the basis of which individuals can make informed lifestyle decisions.
- Information that is misleading or factually inaccurate can cause real distress to vulnerable groups. Misleading information that provokes unfounded public reactions (e.g. reluctance to undergo vaccination) can be said to cost lives.

Summary checklist for science and health professionals

1. Dealing with the media

- Should I talk to journalists about my work?
- Who can give me advice about dealing with the media?

2. Credibility

- Have I mentioned whether the study has been published yet in a peer-reviewed journal?
- Have I mentioned that the findings are preliminary or a generalization is not warranted?
- Have I mentioned that the results have yet to be replicated?
- Have I mentioned that the results differ markedly from those of previous studies?
- Have I mentioned that the findings are derived from samples that may be too small or unrepresentative?
- Have I mentioned that the findings are based entirely on animal studies?
- Have I mentioned that the findings are based on correlation?

3. Accuracy

- Have I exaggerated the significance of the findings?
- Are there other possible interpretations of the results?
- Have I speculated based on opinions or beliefs that are not related to the study itself?

4. Communication of risk and benefits

- Have I cited absolute as well as relative risks?
- Have I warned of drawing the wrong conclusions about the risk?
- Can the risk be compared with anything else?
- Could the reporting of my work lead to undue anxiety or optimism among audiences or readers?

5. Is it safe?

- Have I explained properly why it is not possible to offer an assurance of absolute safety?

6. Should I complain?

Guidelines for science and health professionals

It is clearly important that researchers should communicate their results to the wider public as this will illustrate the potential value to society of their work, and may also enhance the reputation of their professions and of their host institutions. But the communication of research findings imposes on investigators the obligation that findings should be presented accurately and in ways that minimize the potential for distorted or unwarranted conclusions being drawn. This obligation is particularly significant in the medical and biological sciences, where members of the public may view the research as having direct relevance to their own conditions, behaviour or lifestyles.

To ensure accuracy and to minimize the potential for misleading conclusions, the following guidelines are proposed.

1. Dealing with the media

Many scientists have little experience of being interviewed by print and broadcast journalists. While they may be at ease when discussing their work with fellow professionals at conference and seminars, communicating their work accurately to the wider public requires a different perspective, if only because journalists necessarily use different criteria for judging the interest and importance of new developments.

Successful interviews require mutual trust, of ten not easily established on the telephone (the most common means of communication by journalists). Researchers should nevertheless do what they can to assure enquiring journalists of their willingness to co-operate. It is reasonable (and often helpful) to ask in what context the information sought will be published or broadcast (but “don’t know yet” is an equally reasonable reply).

Similarly, it is reasonable to ask whether the interview could be postponed until a more convenient and mutually agreed time, but researchers should be aware that what they have to say is less likely to be misrepresented if their interlocutors have time to reflect on the interview. Requests for a sight of a text before publication are usually (but not always) resisted, not least because the journalist might not be the final arbiter of what

is published. Offers to supply background material (by fax or internet) are prudent safeguards against misrepresentation-so is the offer of telephone contact numbers for last-minute checks close to the deadline for the story.

It is desirable that all research institutions and bodies provide advice and guidance to their scientists and health professionals regarding the presentation of their findings to the media. Researchers should be encouraged to talk about their work in an open and responsible way, balancing the need to maintain scientific rigour with the requirement that research should be communicated in a way that can be clearly understood by the wider public. Equally, host institutions should provide their researchers with specific advice on responses to likely questions from the media, in order to reduce the risk of misinterpretation.

2. Credibility

The status of a research report should always be made clear. If a study has not yet been published in a peer-reviewed journal, the researcher should state this explicitly. When discussing the findings, researchers should state if their findings:

- are 'preliminary', so a generalization is not warranted;
- have yet to be replicated;
- differ markedly from previous studies in the same area;
- are derived from small or unrepresentative samples;
- are based entirely on animal studies' or
- are based on correlation alone.

Where several of the above points apply to a particular study, there may be a strong case for delaying communication of the results until the credibility of the evidence has been established. If journalists are already aware of the story, it may be desirable to attempt to persuade them that they should wait until the necessary proof can be provided. But a refusal to wait should not, in itself, signal an end to the conversation.

3. Accuracy

It is, of course, a fundamental requirement that all researchers report their work accurately. Correct details of methods, procedures, analyses and statistical methods are required in all cases to allow the merits or otherwise of a particular investigation to be assessed. The peer review process is intended to provide this safeguard for the formal scientific literature.

The need for accuracy, however, also extends to the presentation of conclusions and implications of findings, in which journalists are usually most interested. While scientists should be ready to draw attention to the most interesting and potentially newsworthy aspects of their work, it is crucial that the importance of the work should not be exaggerated. Where, for example, several interpretations of the data are possible, these should be spelled out. Researchers should also attempt to set their own work in the context of the evolving pattern of cognate discovery. Similarly, they should avoid speculation based on opinions or beliefs that are not related to the study itself. Collaborators should be identified and their names correctly spelled.

4. Communication of risk and benefits

The communication of the results of studies that report changes in the probability of human morbidity or mortality, or similar changes in risks to the environment, imposes additional and quite specific responsibility on researchers. Science and health professionals clearly have a duty both to warn the public of potential dangers and to highlight potential ways of improving health and safety. At the same time, however, it is essential to avoid generating unwarranted optimism, by reporting findings as 'breakthroughs' or 'miracle cures', or raising fears and anxieties that cannot be supported by the data.

With this in mind, it is desirable that when relative risks are reported, the absolute risk of the phenomenon under investigation should be clearly stated in order to minimise the possibility of inappropriate conclusions being drawn. Where relative risks are small (usually less than 50 per cent), the dangers of inferring causal connections should be stated explicitly, even if the findings may be statistically significant.

Is it safe?

Journalists are often concerned about the safety of a particular development of new technology, reflecting the rise in the prominence of the Precautionary Principle in policy and public decision-making. Scientists are often reluctant to respond to the media by saying something is absolutely 'safe' because there

are usually important uncertainties. audiences or readers may interpret this as 'equivocation' or a lack of conviction.

Therefore, researchers need to anticipate the potential for such reactions, while at the same time maintaining the rigorous application of scientific principles. Again, they might do this in a comparative manner, for example, by indicating that the risks associated with X are, empirically, no greater than those associated with Y where Y might be something which is popularly perceived as 'safe'.

5. Complaining

Researchers who believe their work had been inaccurately reported or that its significance has been distorted, should not hesitate to protest, both to the journalist concerned and to his or her editor, preferably in a letter intended (and suitable) for publication. While it may be true that the immediate consequences of misrepresentation will not be extinguished by this action, editors do read correspondence with care and may pay attention in the future.

If such correspondence does not produce a satisfactory response, or if the misrepresentation is of a serious nature, a complaint to the Press Complaints Commission or the Broadcasting Standards Commission would be appropriate.

No guidelines will ever be 'perfect' in the sense that they cover all eventualities and eliminate all types of misrepresentation, even when followed to the letter. For this reason the Sri Lanka Medical Association will consider amendments and additions to the guidelines from time to time, in the light of on-going consultation with members of the media and the science communities, to be published as updates. Through this process of open and non-confrontational exchange, we very much hope to achieve not only more balanced and accurate reporting of health and science issues, but also much improved working relationships between scientists and the media.

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