Commentary

Using Other People’s Data in Publications

Gerhard Levy
Department of Pharmaceutics, State University of New York at Buffalo, Amherst NY 14260

Scientists have become increasingly concerned with and sensitive to the ethical aspects of research publication, including but not limited to the issue of publication bias(1). It is not surprising therefore that a reviewer of the preceding article by Mayersohn and Tannenbaum(2) added to otherwise complimentary comments the statement that “The only deficiency I noticed in the manuscript is the lack of discussion of ethical issues associated with quantitative data recovery from the literature.”  I do not believe that such discussion is necessary in this specific case but it is timely to consider the relevant ethical issues in general. I have no special qualifications to do so other than the experience of more than 40 years as a working and publishing academic scientist and (from what others tell me) the wisdom one attains (all at once?) upon reaching the age of 70 years.

1 Anon., Review of manuscript cited as reference 2. Personal communication by M. Mayersohn.
I view research publications as the building blocks of science. Each contributes potentially to the total structure of our body of knowledge. Some are eventually (sometimes very soon!) found to be defective and are removed from the structure to be replaced by more suitable ones. Others serve a temporary purpose, more like a scaffolding, pending the availability of more robust (read, definitive) building blocks. Still others serve mainly to reinforce the structure; they have a confirmatory purpose assuring the stability (read, credibility) of the structure.

Research publications serve the scientific community in many diverse ways. They can provide new facts, either in the form of qualitative observations or quantitative data, new concepts, interpretations and ideas. It is unethical not to use these contributions when applicable to one's own work, to disregard previous work, or not to perform an adequate literature search in the first place. In the context of pharmacokinetics/pharmacodynamics, the scientific discipline I am most familiar with, one could ask if a modeler of PK/PD systems should conduct animal and/or clinical studies to obtain organ and tissue weights, blood perfusion rates and other necessary physiologic data if such are readily available in the literature? Alternatively, should he/she have to obtain authors' permission to use such information if it has been published? I fondly remember a comprehensive PK/PD clinical modeling study with two colleagues of the neuromuscular blocking action of d-tubocurarine(3) in which we used plasma concentration data from two publications, urinary excretion data from a third publication, and pharmacologic effect data from a fourth publication by yet another research group. This effort was so successful that it could be used subsequently to explain and rationalize the data in two other, apparently conflicting reports(4).

The joys of being a literature fisherman!

Clearly, data in scientific publications are there to be used by others. As stated in a recent editorial in the British Medical Journal, using existing data to answer questions not directly addressed by the primary researchers is an efficient use of resources(5). We rejoice when our publications are widely cited by others and are annoyed when they are not if (in our opinion, at least) they should have been. There is no ethical or legal obligation to obtain permission for the use of information in scientific publications with appropriate attribution. As a matter of courtesy it is appropriate to send reprints or even preprints to authors whose data were particularly helpful, especially if these authors may be able to benefit from the new information in their future research. If published data are reanalyzed and used to refute the original authors' interpretation or conclusions, it is appropriate to send the authors of the criticized publication the final draft of one's manuscript. If no response is received (which apparently happens often), the manuscript should be submitted to the journal together with a copy of the letter that was sent to the criticized authors. It is customary for the editor to invite the criticized authors to respond within a reasonable time (which should be defined). Reviewers should refuse to review manuscripts of this type unless given evidence that such a procedure has been followed. Another, often more wholesome strategy is to invite authors whose interpretations or conclusions are wrong to become co-authors of a manuscript with the correct analysis and conclusions.

One frequently needs additional information from authors to utilize their published data for reanalysis. A case in point is the need for individual PK/PD parameters when only mean data with standard deviation or standard error were published. We recently used such data to help demonstrate the large inter- and relatively small intrapatient variability of the pharmacodynamic characteristics of many drugs(7). In principle, authors should make such information readily available but an offer of co-authorship often stimulates cooperation and a prompt response. It was recently proposed that grant giving bodies make funding conditional on willingness to share data and that ethics committees insist that protocols allow for data sharing(8). Data sharing has been defined as the act of providing raw data to a researcher who was not part of the team who collected the data for the purpose of secondary analysis(9).

I shall not discuss the issue of data sharing for epidemiologic or meta-analysis, the complexities of which have been the subject of many reports and publications (reviewed in reference 9).

As an academic I have had occasion to criticize in the literature some really nonsensical practices such as the reporting of PK/PD parameter values to five or more significant figures(10). Though I used published examples I did not refer to them in my report. There was no point to embarrassing specific individuals for engaging in a practice that is pervasive. I will adopt the same policy in dealing with a very recent, disturbing phenomenon which derives from the increasingly important role of clinical research organizations (CROs) in pharmaceutical research. Several pharmacokineticists have published single-authored PK/PD studies performed by CROs, with chemical analyses carried out by a contract laboratory. I find the exclusion of the responsible clinical and analytical scientists from authorship improper and possibly unethical and urge reviewers and editors to react accordingly.

Recognition by peers is an important reward for scientists and using their data in our own efforts to enrich the body of science is direct evidence of the value of their work. Therefore, be a literature fisherman/woman (fishperson sounds weird!) and enjoy a rich harvest!!


**References**


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2 Levy, G., A term used in a personal communication to M. Mayersohn (1979).

