

Perspective paper

Ethnographic component and organism documentation in an ethnopharmacology paper: A “minimum” standard

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Abstract

The ethnographic component (traditional/indigenous therapeutic uses of plants or animals, specific contexts of use, preparation, dosage, route of administration) published in the *Journal of Ethnopharmacology* (JEP) has not been consistently and fully provided in the past. In an attempt to ensure the fulfillment of these criteria, hence, the fulfillment of the scope of papers published in this journal, starting with the February, 2004 issue of JEP (vol. 90, 2004), the journal provided detailed “Guide to Authors”, “Author Checklist”, and models of ethnopharmacology papers. An analysis of research papers published in JEP vols. 98 and 99 showed that these papers still have not achieved full compliance with the interdisciplinarity/multidisciplinarity nature of the journal, and the discipline. Thus, a minimum standard for the ethnographic component is set down.

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This essay concerns the ethnographic component of an ethnopharmacology paper, the component that makes ethnopharmacology interdisciplinary in nature, as stated in various definitions. In order to raise and maintain awareness to potential authors, those definitions are reproduced, as follows:

Rivier and Bruhn: “Ethnopharmacology is a multidisciplinary area of research, concerned with the observation, description, and experimental investigation of indigenous drugs and their biological activities” (Rivier and Bruhn, 1979).

Bruhn and Holmstedt: Ethnopharmacology is the “interdisciplinary scientific exploration of biologically active agents traditionally employed or observed by man” (Bruhn and Holmstedt, 1982).

International Society of Ethnopharmacology: Ethnopharmacology is the “interdisciplinary study of the physiological actions of plant, animal, and other substances used in indige-

nous medicines of past and present cultures” (International Society of Ethnopharmacology, 2005).

Journal of Ethnopharmacology: No definition is given, but stated that the breadth of the discipline embraces “use of plants, fungi, animals, microorganisms and minerals and their biological and pharmacological effects based on the principles established through international convention”, as well as “the observation and experimental investigation of the biological activities of plant and animal substances”, and “particularly welcome interdisciplinary papers with an ethnopharmacological, an ethnobotanical or an ethnochemical approach to the study of indigenous drugs” (Journal of Ethnopharmacology, 2005).

In the past, the ethnographic component was not always in place as pointed out by Etkin and Ross (1997) and by Etkin (2001), which prompted Etkin to make a statement that “ethnopharmacologists of all backgrounds should be encouraged to project pharmacological data against a backdrop of medical ethnography (e.g., by addressing therapeutic objectives, specific contexts of use, preparation, etc.) . . .” (Etkin, 2001). To ensure the fulfillment of these criteria and

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Table 1

Statistics from the scoring of research papers published in the *Journal of Ethnopharmacology* volumes 98 and 99 (2005)

Volume (issue) (2005)	Papers (#)	Papers with clearly relevant medical ethnographic data ^a (#)	Papers with detailed ethnographic data ^b (#)	Papers with organism/sample documentation ^c (#)
98 (1–2)	30	24 (80%)	8 (27%)	28 (93%)
98 (3)	21	21 (100%)	7 (33%)	17 (81%)
99 (1)	26	21 (81%)	7 (27%)	20 (77%)

^a There is a clear ethnopharmacological correlation between stated traditional/indigenous medicinal use(s) mentioned and the type of pharmacological activity performed.

^b Including papers present ethnographic data based on fieldwork study/interviews (namely data on use, part used, route/dosage of administration, and preparation of remedy).

^c Voucher specimen or voucher samples documented, whether taxonomic identification/authentication is mentioned or not.

scope, starting with the February, 2004 issue (vol. 90, 2004), the *Journal of Ethnopharmacology* (JEP) provided detailed “Guide to Authors”, “Author Checklist”, and an explicit model for papers to be published in this journal (*Journal of Ethnopharmacology*, 2004). In these instructions, the multidisciplinary nature of papers submitted for consideration for publication to this journal is pointed out. The need for organism (voucher specimen/sample) documentation is also stressed.

As a past editor of this journal, I am fully aware that authors have not always fulfilled the ethnographic requirement of ethnopharmacology, or if an ethnographic component is provided, it is often deficient and often served only as an embellishment of the pharmacological experiment and the experimental data presented, or simply to pay a lip service (Etkin and Ross, 1997; Etkin, 2001).

To determine whether the situation has improved today, given the more detailed instructions and guide to authors in the preparation of manuscripts presently printed in every issue of the journal, I took a self-assignment of reviewing the ethnographic component of *research papers* (namely full research papers and ethnopharmacological communications) published in the last two volumes of the *Journal of Ethnopharmacology* (volume 98, issues 1–3 and volume 99, issue 1, 2005) and classified ethnographic information in each article into three categories:

1. No ethnographic data, justification of experimental study is result of previous experimental data.
2. Ethnographic data given, mostly based on literature reference or on anecdotal source (in the latter, no literature documentation or no fieldwork interview is given).
 - a. Detailed information given (use, part, preparation/dosage, and route of administration given).
 - b. Details lacking (none or only one or two of the four pieces of data above given).
 - c. Data (details or not) confusing or irrelevant to the experimental study proposed and performed (no clarity in ethnopharmacological correlation).
3. Ethnographic data extensive (result of field study/interviews).

Statistics that result from the scoring of the above parameters are presented in Table 1. Clearly, papers published in the JEP today still have not achieved full compliance with the interdisciplinarity or multidisciplinary nature of the journal, and the discipline. In order to achieve full compliance, I feel that it is time to set a minimum standard on the ethnographic component of an ethnopharmacology paper.

First, an ethnopharmacology paper must have an ethnographic component. Although a literature reference to a previously published ethnographic data is acceptable, it is the responsibility of the author(s) to provide explicit data that will establish a clear correlation between the traditional or indigenous medicinal uses of the subject plant or animal investigated, or its derivatives, with the proposed pharmacological activity to be studied, in all respects, including part of the organism used and studied. If the benefits of the ethnopharmacological studies are to be returned to the people or communities that hold the indigenous/traditional knowledge (Heinrich, 2001), or if the drug being sought is expected to be used to treat the disease stated in the indigenous traditional use(s) for the benefits of all people, a relevance or an ethnopharmacological correlation must exist. Thus, if a plant is to be studied for its antimalarial activity, the subject plant must have traditional use to treat malaria or to treat affections or symptoms that may be attributed to malaria (e.g., fever, intermittent fever, antipyretic, treatment of muscle pains, among others). Details on plant part used, preparation of the remedy, dosage, and route of administration are important elements of a complete set of ethnopharmacological data. An anecdotal statement of traditional use(s) or a statement saying simply that a subject plant has been used in a system of medicine, or has been used for “thousand of years” is not adequate as an ethnographic component. Also, not stating a route of administration, under the assumption that an extract or drug is taken orally, is not adequate. Authors should strive to provide more complete and more explicit information. A paper will not be an ethnopharmacology paper if the ethnographic component is missing or irrelevant to the experimental study proposed and conducted. For further insight, potential authors should read the editorial “Ethnopharmacology—a challenge” published in the *Journal of Ethnopharmacology* in 1983 (Holmstedt and Bruhn, 1983). The ideal ethnopharmacol-

ogy paper is one based on field studies and interviews on the indigenous/traditional medicinal uses of the subject material, where details on uses, plant part or the type of medicinal preparation used, the manner how the remedy is prepared, and the dosage and the route of administration of the remedy are given. When such field studies are involved, authors should provide a statement on issues of prior informed consent for the field interviews, and permission from the interviewees for the publication of the information derived from the interviews. If more formal setting of field research was undertaken, a statement on approval of field interview protocol by an Institutional Review Board of the investigator is in order. If plant and plant samples for biological evaluation is collected, either as part of the interview process or as part of the follow-up pharmacological or chemical studies, a statement of access or collection permit, be it from a national park, a forest preserve site, a sacred place, or permit related to ancestral domain, whichever is applicable, must be provided. Researchers from a foreign country, must, by obligation, be able to produce an access/permit document issued by a government agency (e.g., Forest Protection Department or Ministry of Natural Resources and the like) of the country, where the field study and collection are performed.

Second, since an ethnopharmacological study involves an element of the biological diversity, it is a necessity to document observations and collections of the research subject material (plants, animals, etc.) by way of voucher or reference specimens (normally cited by the name of the collector and his collection number, or an institutional acquisition number), as basis for taxonomic identification and future reference. A statement on the place of deposit of such voucher specimen is necessary in the event that a need arises to re-locate that material. This will assure the existence of physical evidence that can be re-visited for verification, should questions arise on the taxonomic identification on the research material. A

statement on taxonomic authentication serves as an assurance of the credibility of identification.

Third, in order to achieve the fulfillment of the definition of ethnopharmacology, aside from authors, who hold the primary responsibility to see that a paper has satisfied the ethnographic requirement, the *Journal of Ethnopharmacology* reviewers (primarily, Editorial Board members) and Editors also bear the responsibility to ensure that only papers that have satisfied the definition and requirements for an ethnopharmacology paper be accepted and published in this journal.

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