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A Call for a Dedicated Quality-Assessment Tool for Primary Ethnobotanical Studies Included in Systematic Reviews

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Ethnobotany is the interdisciplinary study of the relationships between human societies and plants, encompassing the documentation, cultural significance, and traditional uses of botanical resources (Seydi et al., 2025). In this field, systematic review studies function as an essential evidence synthesis method that can inform conservation efforts, public health interventions, and traditional knowledge protection initiatives (Page et al., 2021). In the context of ethnobotanical studies, there is a need for a specialized tool that can address methodological and ethical appraisal aspects as well as study quality and risk of bias. Many existing quality-assessment tools were developed for clinical and general observational studies (Long et al., 2020, Shea et al., 2017, Sterne

et al., 2016), but they do not account for the specificities of ethnobotanical research thus potentially limiting the value of evidence synthesis for researchers and practitioners and policymakers (Heinrich et al., 2018).

Whilst ethnobotany research cannot be easily reduced to quantitative measures, ethnobotany remains an interface between qualitative and quantitative fields of enquiry using a range of methods, from semi-structured interviews, participatory observation, focus groups, local questionnaires and historical-document analysis together with taxonomic identification. Existing standard quality assessment tools fail to address essential evaluation areas which include confirmation of taxonomic identification through

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voucher specimens, authoritative references; ethnographic method transparency during interviews, pretesting and local language usage; methods for triangulation and validation of oral knowledge between informants; documentation that connects local names to scientific names; detailed information about ethical practices (consent, benefit sharing, data protection); and cultural, temporal and ecological context.

The tool needs to assess taxonomic confirmation, sampling and participant selection methods, instrument validation and data collection procedures, triangulation/validation techniques (where possible), ethical considerations and community engagement, transparency of mixed-methods analysis, and clarity in reporting study limitations and generalizability. The development process requires interdisciplinary participation from experts from the fields of ethnobotany, ethnography, taxonomy, methodology, and community representatives who will validate the tool through Delphi rounds and pilot testing on existing reviews. The project team should store all outputs, including the checklist, guidance, example extractions in an open archive.

A well-developed instrument for ethnobotanical systematic reviews could enhance methodological quality, facilitate comparison across studies, and strengthen ethical standards and the practical applicability of evidence synthesis. We invite colleagues to collaborate on drafting and piloting this tool.

Declarations Conflict of Interest

The authors declare no conflicts of interest.

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Authors' Contributions

The author conceived and developed the idea, drafted and critically revised the manuscript, and approved the final version.

AI Use Disclosure

None.

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