

IKNotes

No. 52
January 2003



Ethiopia

25269

A Qualitative Understanding of Local Traditional Knowledge and Medicinal Plant Use

The *real* figures behind that '80%' figure

At this very moment, somewhere in a remote rural community in the Ethiopian Highlands, a local farmer may have just gathered the leaves or roots from a medicinal plant found near the homestead. In a nearby hamlet, a mother may be in the midst of preparing a traditional plant treatment believed to 'restore strength', relieve stomach cramps, heal a skin condition, or perhaps alleviate symptoms of a respiratory tract infection affecting her child. It is such routine use of plants by ordinary members of local communities across Ethiopia's diverse rural landscape, which largely accounts for the widely cited 80 percent estimate of the population who continue to rely on traditional plant-derived medicines for their basic health care needs (Bannerman, MOH, 1985; Abebe and Hagos, 1991; IBCR, 1999).

While there is now growing recognition that the study of indigenous health knowledge and practices requires an essentially multidisciplinary research framework, to date, botanists,

natural chemists, pharmacologists, anthropologists and health-workers have generally pursued their specific research interests in this area in relative isolation from each other. In Ethiopia, there have been few cross-disciplinary linkages among the various approaches of researchers or the analysis of their findings¹

Moreover, much of the existing literature on Ethiopian traditional herbal medicine is dominated by plant-focused work, resulting from the 'mainstream research agenda', which has been largely driven by an overriding interest in the specific therapeutic properties of individual plants. In search of information on the properties

IK Notes reports periodically on Indigenous Knowledge (IK) initiatives in Sub-Saharan Africa and occasionally on such initiatives outside the Region. It is published by the Africa Region's Knowledge and Learning Center as part of an evolving IK partnership between the World Bank, communities, NGOs, development institutions and multilateral organizations. The views expressed in this article are those of the authors and should not be attributed to the World Bank Group or its partners in this initiative. A webpage on IK is available at // www.worldbank.org/afr/ik/default.htm

of various Ethiopian medicinal plants, researchers have generally focused their attention on two main sources: (i) the professional traditional health practitioners and (ii) Ethiopia's ancient medico-religious manuscripts — herbal letters containing elaborate recipes of plant-derived treatments for a wide range of health conditions (see e.g., Abebe and Ayehu, 1993).

By contrast, there have been few studies focused specifically on traditional knowledge and practices outside the 'professional' realm of traditional medicine. The purpose of this article, derived from a larger study, is to share some of the findings of current research² envisaged focusing explicitly on the 'lay domain' of traditional knowledge in the Ethiopian context.

Objectives and methods

The fieldwork-based study aimed to gain insight into the local distribution of traditional health knowledge and the uses of various medicinal plants among ordinary men and women in rural communities, who constitute the vast majority of Ethiopia's population. The overall aim of the research is to contribute to the growing body of literature and experience pertaining to the role of indigenous/traditional systems of knowledge in development. Underlying this objective is the fundamental premise that health constitutes the linchpin of the development process, viewed at once, both as the means as well as the end of development.

The fieldwork was carried out with the participation of communities in the rural Bahir Dar Zuria district of Gojam (now part of the Amhara Regional State) located in the North Western Highlands of the country. A combination of research tools from various disciplines were employed. Gender considerations constituted an integral and cross-cutting aspect of the methodology, as important gender factors were expected to be involved, *inter alia*, in the distribution of traditional health knowledge and its inter-generational transmission. Among the instruments applied for gathering data were:

- household surveys (viewed as the main component of the field work);
- oral histories (based on open discussions with widely recognized knowledgeable elders);
- focused discussions with mothers at local health centres;
- local market surveys;
- questionnaires administered to high-school students; and
- structured interviews with (both modern and traditional) professional health practitioners.

Preliminary assessment of the data

In-depth quantitative and qualitative analyses of the data gathered from these various sources are still under way. Following are some highlights of the preliminary findings of the research.

The tacit and pervasive nature of traditional health knowledge

In general, traditional knowledge about medicinal plants and its application are very much taken for granted by both men and women in all the study communities. Such traditional knowledge and practices constitute routine aspects of daily life and are deeply engrained in the socio-cultural and economic fabric of these rural societies. This is a significant finding in itself, as it clearly demonstrates the sheer scope and significance (actual and potential) of local traditional knowledge.

Gender and age dynamics

Some general trends could be discerned suggesting considerable gender and age differences in the type and extent of traditional health knowledge. For example, middle-aged and older women and men generally appear to have a greater breadth of medicinal plant knowledge. In addition, men more often demonstrated knowledge of plants primarily procured from the wild, whereas women generally showed greater familiarity with the therapeutic uses of weedy and semi-domesticated plants found around the homestead.

Main sources of traditional knowledge

'Routine observation and practice' or 'learning by doing', was the most widely-cited method through which knowledge is acquired. Here again, a relatively larger proportion of men indicated having obtained their knowledge in this way, suggesting some notable gender differences in terms of the mechanisms by which traditional knowledge is imparted.

The medicinal plant resource base

The local names and specific uses of more than 80 plants with medicinal value were documented throughout the study. The large majority of these are wild/weedy species, often occurring around the homestead or farm and requiring little management. This finding alone is strongly supportive of the original research hypothesis, i.e. that significant knowledge about medicinal plants resides in the 'non-professional' or public domain. In addition, the local names and specific uses of most medicinal plants cited by different informants were appreciably consistent.

Role of rural professional health practitioners

In general, professional traditional health practitioners seem to play a much less pronounced role in the rural communities than has generally been presumed. It appears that most ailments are diagnosed and treated at the household level. Very few informants reported seeking professional traditional help on a regular basis. Where professionals are consulted, it is often for their specialized traditional knowledge and skills pertaining to a relatively limited range of health problems.

The qualities of traditional knowledge

Further reflections about the various features of the traditional knowledge characterised above raise some questions, inherent paradoxes and eye-openers. These relate to the potential role of traditional health knowledge, the nature of the traditional learning process and the intrinsic contrasting features of traditional knowledge.

The potential role of traditional health knowledge: challenges and limitations. The term 'challenge' immediately brings to mind the single largest health problem in the study area—malaria. However, no specific traditional plant medicines for malaria were reported. While this raises questions regarding how 'new' malaria is to the area, it also seems compellingly related to the fact that overall understanding of malaria aetiology is extremely poor among the local people. The latter underscores the urgent need for community-based health education and prevention programmes. Nevertheless, some relevant traditional perceptions regarding the general 'ecology' of the disease could be discerned, which may provide an advantageous basis for effective locally adapted health education and promotion efforts.

Another basic challenge has to do with the dire sanitary conditions in the rural communities. Indeed, it would seem that such communities that rely heavily on traditional plant treatments are caught in a vicious cycle, as many of the ailments that the local plant medicines are used for are linked to poor environmental sanitation. Thus, the lack of proper latrines, waste disposal and clean water can be viewed as the *raison d'être* for many traditional treatments. Conversely, however, it can also be argued that, were such very basic and vital provisions in place, then health care efforts at the local level could perhaps, have been more effectively and appreciably targeted at the prevention of some of the more difficult health problems in the area, *such as malaria*. Hence, these very shortcomings can, in a sense, be viewed as among the greatest impediments to the realization of the full potential of indigenous ingenuity and traditional approaches in meeting local health needs.

The knowledge transmission process. Exactly how is traditional health knowledge transmitted over generations? Are the traditional mechanisms that have been in place in the past still intact? These are complex questions, requiring detailed contextual longitudinal evidence, which is extremely elusive and difficult to unearth. However, one observation that may have some relevance to these questions concerns traditional knowledge among children. It was observed that boys and girls as young as 6-7 years had remarkable 'botanical' knowledge, i.e. the ability to distinguish various medicinal plants growing around the homestead. But what of other aspects of traditional knowledge pertaining to the preparation and administration of plant medicines and the diagnosis of diseases? Could knowledge about these aspects be 'selectively' threatened? Such important issues will be investigated through further analysis of the information gathered.

Contrasting features of traditional practices. With increasing interest in the role and value of traditional knowledge systems, such knowledge and its application have often sweepingly but perhaps, precariously, become associated with positive outcomes. Yet, if traditional health systems are to be strengthened as a whole, due attention should also be given to those practices that appear, at least *prima facie*, to be less than beneficial. Cases in point are, traditional surgical procedures such as the removal of the uvula, tonsils and teeth, and even graver practices of bloodletting and female circumcision³ — all of which remain widespread in the study

communities. Perhaps even more so than in other aspects, the particularly complex issues entailed in such traditional practices, necessitate the utmost socio-cultural sensitivity and a sound understanding of the local context in which they persist.

Conclusion

It is anticipated that some significant conclusions will emerge from the ongoing study. What can be generally surmised at this stage, are some of the broader implications and expected contributions of the research.

First, over the last decade or so, increasing interest in traditional knowledge, particularly regarding medicinal plants, has been fraught with debates regarding intellectual property and traditional resource rights. Often, driven primarily by interests and forces external to indigenous communities, these remain extremely complex and indeed, urgent issues with which policy-makers and stakeholders from both the North and South are actively grappling in various international fora. But this highly politicized focus at the global level seems to have diverted research attention away from the local context, i.e. from a *real* understanding of the actual and potential roles of traditional health knowledge and practices in addressing arguably the most urgent health-care needs of growing populations in resource-constrained developing countries like Ethiopia. Hence, it is hoped that the present study and others like it can, in the first instance, help to redirect some research attention to the community level.

Second, as this study has demonstrated, at least in the context of rural communities in the North-Western Highlands of Ethiopia, traditional knowledge regarding the use of medicinal plants is far from being a corpus of wisdom or expertise generally presumed to be restricted to the male-dominated elite of professional traditional health practitioners. Indeed, most of the traditional treatments used in the communities studied are collected, prepared and administered by ordinary men *and* women at the household level. Hence, this implies that those 80% of the population, who are said to rely on traditional plant-derived medicines, do not invariably consult professional practitioners. Indeed, the fact that traditional health knowledge is so pervasive and the use of local medicinal plants so widespread has paramount implications, which simply cannot be ignored by those concerned with health

development and practitioners in the closely allied field of natural resources management.

Finally, it has become evident that research and development efforts must also aim to identify and address the challenges and threats faced by traditional health knowledge systems, *in toto*. The ultimate goal is to strengthen and improve this vast knowledge base for the benefit of the great majority of the developing world who have survived on it for centuries and will continue to do so into the foreseeable future.

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1 One notable exception is the promising cross-sectoral/multidisciplinary framework adopted by the recently launched World Bank-supported national R&D project on the conservation/sustainable use of medicinal plants used for human and livestock health care (see IK Notes No. 35).

2 Research in progress (final phase) in partial fulfilment for a DPhil (PhD) degree in Development Studies at the University of Oxford, Oxford UK.

3 Viz.: IK Notes No41: Eritrea: *Eliminating a Harmful Traditional Practice*.

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