

Linking medicinal plants, traditional knowledge and community health

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Abstract

There are several models across the country at the local level on diverse nodes of interventions, however concerted policy attention and integrated frameworks/approaches for bringing together multiple institutions and stakeholders are missing. In early 2000, at national level local health traditions appeared in policy documents together with the efforts to mainstream AYUSH systems. But after a decade of official support, it is again on the verge of being marginalized in the official programs. In this context, the authors specifically highlighting the scope of developing an Integrated implementation strategy on conservation and sustainable use of Medicinal Plants, strengthening traditional medical knowledge, traditional health practitioners and other local knowledge experts, integration in Primary Health Care, enterprises, equity and livelihoods and local resource centres for education and capacity development.

Keywords: *Local health traditions, Conservation and sustainable use of Medicinal Plants, Primary Health Care, Livelihoods, Capacity development*

Introduction

Contribution of traditional medicine, in particular medicinal plants in improving community health and wellbeing is being recognized increasingly in recent years. Globally the relevance of medicinal plants and associated traditional knowledge to modern health care is understood better due to the high visibility of innovative chemical compounds and novel drugs that have been developed based on plants and other natural resources (Newman & Cragg, 2007). At the same time, the significance of ecosystem specific medicinal plants and other resources and related indigenous and local traditional medical knowledge towards the health and nutritional security of people in insufficiently connected and marginalized regions in our country is much more profound. The paradox is that the regions especially rural areas which have poor access to formal public health care infrastructure or personnel often are abundant in biocultural

resources that can have considerable positive impact on community health and wellbeing. This also has significance in urban or semi urban contexts where there are newer health sector challenges such as progressively high out of pocket spending for health, increasing privatization, over medicalization of healthcare and curative focus. Such an integrative health system approach consisting of relevant holistic traditional healthcare perspectives and practices could also contribute to achieving good health at relatively lower cost (Balabanova *et al.*, 2013).

An Integrated implementation strategy

Integrating local traditional health care practices in primary health care at local communities requires a comprehensive multi-pronged strategy involving various elements such as assuring conservation and sustainable use of medicinal plants; strengthening local health knowledge and practitioners; identifying and promoting evidence based practices in public

health programs; assuring equitable livelihoods through locally relevant enterprise models as well as assuring protection of local knowledge (Unnikrishnan & Suneetha, 2012). The following section elaborates some of these elements.

1. Assuring Conservation and Sustainable Use of Medicinal Plants

As medicinal plants and other natural resources form an important aspect of the health nutrition–biodiversity rubric, it is critical to ensure their survival through effective conservation and sustainable use. One in five of the world's plant species are estimated to be threatened with extinction in the wild, with unsustainable harvest and trade being a major driver. This calls for coordinated action among different actors, including the private sector to address the issue of sustainable use of medicinal plant resources. The case is even more complex with regard to faunal resources used for medicinal purposes.

Considerable work has progressed in India with respect to the creation of a national inventory of medicinal plants, studying their threat status and promoting nationwide conservation and sustainable strategies (FRLHT, 1999; Ved *et al.*, 2005; Saha & Sundariyal, 2012). At the local level, it is important to develop local inventories through biodiversity registers and ensure community based participatory methods of conservation and sustainable harvest of important medicinal and nutritional resources. Assuring their availability through cultivation and development of community gardens as well as home herbal gardens are also critical (Hariramamurthi *et al.*, 2006).

2. Strengthening Traditional Medical Knowledge

Identifying local health priorities and supplementing them with ecosystem as well community specific traditional medical knowledge and resources through primary health programs is critical not only to

ensure conservation of biodiversity but also health security at the local level. There is a vast array of local health knowledge starting from simple household knowledge of primary care to specialized knowledge of healers in the communities. They are mostly undocumented and are eroding at a fast pace. It is vital to systematically document them both at household level as well as of the more specialized healers' knowledge and carry out assessment of relevant practices through participatory processes for community health. This is not only important for promotion of such knowledge for community health but also for protection of such private community knowledge from appropriation or biopiracy. This would also help support intergenerational transfer of knowledge. Systematic documentation of practices, participatory assessment and creation of well studied local pharmacopoeia are essential towards this. There are several existing models across the country for such documentation and assessments. These good practices need to be integrated across various local government's (panchayat) planning processes as well as local educational programs from primary to higher education appropriately.

3. Traditional Health Practitioners and other local knowledge experts

In local communities, health practitioners trained in traditional and non-formal systems of medicine play a crucial role to provide affordable health care in their contexts. These carriers of local medical knowledge do not get adequate attention often in the revitalization strategies. These healers may be specialized in treating general conditions, bone setting, skin, liver, eye, children's or reproductive health disorders, or practitioners of ethnoveterinary medicine. Following the institutionalization of AYUSH in the country, practitioners who are not institutionally trained have got alienated from the official system as they do not have any official legitimacy for their practice. This has resulted also in rapid erosion of their knowledge

and methods of intergenerational transfer of local knowledge. It has also resulted in reduction of the social legitimacy of these healers. Studies have proven that in most parts of the country a large percentage of such healers belong to an above sixty years age group. Despite this lack of legitimacy in many parts of the country, these practitioners continue to render various health services. It is important to create networks of such practitioners, device self regulatory systems, recognize their societal contributions, and create systems of accreditation and certification of their prior learning. It is also important to integrate their services at the respective communities through such recognition at panchayat level as community health practitioners.

4. Integration in Primary Health Care

Local health practices can make significant contributions not only in managing simple ailments but also in certain more serious communicable diseases as well as in lifestyle disorders. One critical factor in such promotion is to assure quality, safety and efficacy of such practices. Whereas, most such local health practices are experience based and handed down through generation as oral traditions they lack documented evidence of efficacy. Identifying practices and resources which are contextually relevant from the local pharmacopoeias and testing their efficacy through systematic non-clinical as well as clinical studies are important. Integration of such well validated preventive, curative as well as promotive practices in health programs through either the primary health centres or through any other official health delivery systems would be beneficial. The scientific institutions and the fraternity though have been involved in such efforts selectively, intense and focused attempts should be made to further augment current efforts to a scale of mass application across the country.

6. Enterprises, Equity and livelihoods

Traditional knowledge and resources from an ecosystem are parts of supply chains of products (e.g., medicinal products, raw materials) and services (e.g., health care, nutrition). Income that is generated and distributed equitably from such activities provides an incentive to conserve such knowledge and resources, while also resulting in better health and nutrition outcomes. In this context it is also important to facilitate locally relevant models of enterprise development using medicinal plants, intermediate products for commercial utilization, dietary interventions fostering enhanced livelihood security. Possible enterprises include collection and sale of non-timber forest produce, cultivation of medicinal/nutritional resources, semi-processing, small scale production of medicines and related health products, and capacity building at various levels. Linking such enterprises to market-based instruments such as certification schemes, and sustainable supply, among others further enables retention of better incomes and benefits at the producers' level especially among marginalized populations.

7. Local Resource Centres for Education and Capacity Development

Often it is a challenge to implement such programs is the difficulty in capacity building of relevant stakeholders towards this strategy. It is important to establish panchayat level centres of learning that serve as resource / extension centres that provide technical support and act as a knowledge hub for communities on health issues and usage of traditional medicine with state of the art communication resources and technologies. These centres could develop local pharmacopoeias, demonstration and interpretation gardens and herbaria and raw drug repositories/library, nurseries for supply of planting materials and relevant primary healthcare kits based on available medicinal plants. It is also important to integrate such practices both in formal education right from primary schools and informal education programs. These

resource centres could form hubs for such educational programs. State level institutions that capacity build in local administration and development should take a lead in developing appropriate training programs for wide reach.

Way forward

There are several models across the country at the local level on diverse nodes of interventions, however concerted policy attention and integrated frameworks/approaches for bringing together multiple institutions and stakeholders are missing. In early 2000, at national level local health traditions appeared in policy documents together with the efforts to mainstream AYUSH systems. But after a decade of official support, it is again on the verge of being marginalized in the official programs.

It has been well documented that across the country there are a unique, yet marginalized local health practices which can make immense contribution towards improving community health and wellbeing. There have also been systematic efforts to conserve these resources through government intervention in various parts of the country. There have also been efforts of systematic documentation of various local health practices, networking of practitioners, research and development for new medicines, enterprise development based on medicinal plants and associate traditional knowledge *etc.*, by various agencies across states. A mass implementation plan, yet decentralized to suit to the contextual needs, focused at the panchayat level could be developed across the country. This would go a long way in revitalizing the rich health related cultural heritage in the country while significantly contributing to the improvement of overall health and wellbeing.

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