

HEALTH SYSTEMS  
**Women's Health through Self-Help and Traditional Remedies:  
the Shodhini Experience**  
TAMIL NADU

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***Introduction***

Shodhini is about the experiences of women who came together in search of a woman-centred approach as an alternative to the prevailing dominant systems of health care. Traditionally, woman healers have been informed by a wider consciousness and perspective about nature, the universe and disease. They have attempted to refrain from mere objectivity and have opted for a mode of perception in which both the healer and 'healed' participate in the sacred journey towards health.

'Getting well', in a person-centred approach, has a deeper meaning than just being free of a particular complaint or illness. Getting well means being alive, participating in and giving and taking from the energies of the universe. Pregnancy and childbirth, for instance, are an integral part of life and do not necessarily need doctors, nurses, hospitals and medicines. Self-help measures and knowledge that address women's ailments can reduce the need for pharmaceutical and high-tech paraphernalia.

Indigenous systems, especially the more popular, so-called oral traditions, have developed in relatively greater harmony with nature in contrast to the allopathic system, which continues to visualise health as a battle between human beings and nature's predilections. In addition, the allopathic system, brought into India by the British, imposed a model of medical care that further marginalised women's indigenous knowledge and health care practices. Women's contribution to healing continues to be trivialised as unscientific.

Whether the western health care system, or for that matter any of the dominant, classical medical systems of India, really serve women, is open to question. If they do, they do so in a limited way. These dominant systems are reluctant to look at the social roots of diseases. They ignore power relations that are embedded in gender, caste, class and religious identities, and their cumulative effect on people's bodies and lives. Thus

many a woman's serious complaint has been dismissed flippantly as a mere 'women's problem', implying, among other things, disdain and disbelief: are these women really serious? Many women have learnt to cope with such historical indifference by adopting multiple and innovative strategies of resistance, and of survival. This paper attempts to record some of these strategies of survival, of how women in India have stayed healthy traditionally.

Shodhini, then, has at least two clearly articulated objectives:

- to seek to understand traditional healers, and their healing practices, document their use of herbs, preparation of herbal remedies and practice of non-herbal healing practices, including some of the rituals that accompany the process of healing.
- to help women take charge of their bodies through a process of self-help so that they understand the body, its rhythms as well as its power.

### ***In the Beginning***

Shodhini's genesis lies in a national consultation of women's groups working in the field of health. In October 1987, in SRED Tamil Nadu, 50 women's health activists from both rural and urban areas all over India congregated to discuss the state of women's health. Also present at this consultation was Rina Nissim of the Geneva Women's Health Collective. The discussions revealed that the interests of urban and rural women were substantially different. Urban women were keen to learn about the use of traditional remedies and plants in women's health from rural women. Rural women, on the other hand, wanted to learn about modern developments in health, they wanted information to which they had no access. Women's traditional knowledge for managing their health problems appeared to be dying out. On the other hand, it was felt that, medical care fails to reach the vast majority of Indian women. Inadequately staffed government health facilities, a health care system that looks at women only as 'mothers' to be targeted for family planning and population control policies, indifferent, and sometimes even hostile, personnel manning (literally) the primary health centres, make a mockery of programmes for women's health. In light of this situation, the participants at this meeting mooted that alternatives needed to be created to make quality care available for women.

The consultation led to the formation of a small group of women under the banner of 'Action Research on Alternative Medicine and Women's Health' with Rina Nissim as the convenor. The group consisted of women from grassroot organisations like Deccan Development Society (DDS), Action India, Aikya, SARTHI, Eklavya, Sadguru Water Development Foundation, Sabla Sangh and Vikalp; from support organisations like

CHETNA; and from women's research and documentation organisations like Jagori and Anveshi. This field-based group was supported by a number of people all over India among whom mention must be made of Indira Balachandran, of Arya Vaidyashala, Kottakal, Kerala; Shyama Narang, a gynaecologist based in Bangalore; and Tanushree Gangopadhyaya an activist based in Ahmedabad.

Thus Shodhini was born as a collective effort to create an alternative for women's health. Ours has been a woman-oriented approach aimed at evolving a simple, natural and cost-effective health care system. This approach to health care, particularly when done in a group setting, with group discussions, is appropriate for all women including those in less economically privileged classes or countries. In addition, the therapeutic methods used in

self-help, which are based on elements which the earth gives us in the form of locally available herbs, are applicable everywhere. Believing in the validity and usefulness of the above approach, Shodhini's efforts in working towards alternatives, moved across four distinct phases:

- ❖ collection of information on plants and natural elements commonly used for women's health problems
- ❖ training local women health workers/healers in herbal medicine using self-help and a holistic approach
- ❖ field testing and validating the use of common herbs in a systematic way at the community level
- ❖ in the process of working on the above three phases, developing a team of concerned women and 'barefoot gynaecologists' who will continue to sustain the work of developing alternatives in women's health care.

The process of gathering relevant information about plants required nearly 18 months. During this time, we also had discussions and meetings with different groups of women from the organisations mentioned above, to find out more about the common yet neglected health problems of women in their region. Our investigations and field interactions with women revealed that many of them suffer from gynaecological problems which they feel shy and afraid to talk about and hence these remain hidden and neglected. We found that apart from gynaecological problems, anaemia, night blindness and body-ache are also neglected.

It was precisely these neglected but common problems of women that we wanted to identify and enable the women to deal with. Thus, through a series of meetings, discussions and dialogue with various regional women's groups, we arrived at the following areas for our action research.

- ❖ problems of the menstrual cycle

- ❖ urinary tract and vaginal infections
- ❖ uterine and cervical tumours, benign and malignant
- ❖ problems during and after pregnancy: anaemia, nausea, lactation failure, weakness, etc.
- ❖ other neglected aspects of women's health - back pain, joint pain, weakness, genital prolapse (vaginal, uterine and rectal), fatigue and depression

### ***The Shodhini Method and Methodology***

The Shodhini experiment has been informed by a feminist framework and the related critique of modes of research and inquiry. Specifically, we have seen research in women's health as a process of co-operative inquiry, whose goal, as it seeks, 'truth', must be empowerment of women. The self-help methodology of exploration, diagnosis and treatment, as well as Shodhini's recourse to plant-based medicines and other non-drug therapies, are the means of achieving this goal. Self-help groups are support groups whose members come together regularly to deal with a common problem. When it comes to women's health, self-help groups are where women come together to learn about their bodies and to help each other deal with common symptoms and problems. The process also helps to enhance the self-esteem and self-confidence of the women involved. The self-help movement grew out of women's realisation that we have been dispossessed of an immense knowledge, and thus power, by medical profession in a patriarchal system.

Obstetricians and gynaecologists who are vested with the responsibility of looking after women's health, treat women as passive objects. Women are thought to be incapable of understanding their bodies, of taking decisions related to their bodies or their health. Self-help groups reflect values which are important to women, and try to ensure that information relating to our bodies and our health is accessible to all. Implicit in these groups is the belief that we have the capacity to understand medical information. Experiences of group members are an important source of information about health, illness and treatment.

The self-help approach is different from modern, western medicine in yet another area - profit. The pharmaceutical industry and highly technological diagnostic facilities are known for creating, rather than serving, needs. They are part of the larger capitalist logic of profit maximisation. In contrast to the passive consumerism encouraged by modern medicine and the 'information-for-sale-to-be-jealously-guarded' attitude of modern medical practitioners, self-help seems to encourage autonomy through information sharing and control over resources. As

the saying goes in Kannada, *Hitalla geda madalla* (I do not look at the plant that grows in my own back yard). For most of the diseases from which we suffer, there are cures in the plants available in our own back yard.

In the course of Shodhini's work, we formed self-help groups at three levels. There was a core group of about ten women with whom the self-help methodology was first tried out. Different core group members initiated self-help groups with the health workers in their respective field organisations. These health workers in turn formed village-level women's self-help groups. Feedback links were maintained between each level and this contributed to the collection of rich experience, creating waves of liberating energy.

Self-help methodology is a means of discovering aspects of ourselves that have been hidden in fear, shame and embarrassment. It is a means of coming to terms with our wholeness; a means of reclaiming our power.

### ***Shodhini and the Allopathic Approach***

How does Shodhini's approach differ from a typical allopathic gynaecologist?

The major difference, perhaps, is that we in Shodhini believe, first and foremost, that women's experience of health and illness need to be expressed and made visible. In what terms does each individual woman describe her own experience of her body and her health?

What is her definition of a healthy woman? We feel that any health care provider first has to understand where the woman, the 'client' or if you will, is coming from - what effect her set of experiences and her relationships have on her body and her mind. Only after appreciating and understanding the subjective experiences of her 'patient' can a health care provider begin to use her own specialised knowledge and skill. In fact, the health care provider, from Shodhini's perspective, should have the ability and sensitivity to relate her own knowledge to her client's life experiences, to arrive at a diagnosis. Gynaecologists may ask, "How is our history-taking different from the 'subjective experience' that Shodhini is advocating?" Gynaecologists, we feel, base their history-taking on a set of assumptions and facts defined by their knowledge system which only serves to limit their inquiry. There is, perhaps, an insufficient grappling with the framework of their 'patient's' knowledge and belief systems.

The second major point of difference between Shodhini's approach and classical gynaecology is Shodhini's commitment to the principle that information is power. We believe that women should be given full

information (in terms that they can understand) about their problem or disease and how it affects their bodies and their minds. We believe that demystification and de-professionalisation are essential for enhancing people's control over their own situations. Very few gynaecologists (or professionals for that matter) are willing to spend time with their clients and share their own knowledge. Few possess the humility to try and discover what their client already knows, believes or feels about her own problem. Control of knowledge is one of the most critical arenas of feminist struggle.

The gynaecologist's mode of operating is one of treating a patient with a set of interventions (like medicines, CAT scan, surgery, etc.), which will act on her body. Shodhini's attempt on the other hand, is to help the client create a set of conditions which can aid healing: healing of the body, the mind and relationships. The client is in control, she is an equal participant, along with the health care provider, in her own healing process. Together they make decisions about what needs to be done. In the other mode the patient is merely a body, a black box, on whom the specialist, the gynaecologist, performs a set of operations to control the outcome.

### ***Shodhini as Feminist Research***

An important reason why even gynecologists operate in this mechanistic way, and are loathe to trust the subjective experiences of their female clients, is that the knowledge and practice of medicine, as also psychology and psychiatry, tend to be enmeshed with male-defined constructions of women's bodies and minds. Shodhini attempted to create a space where women's experiences, women's voices, and their understanding of their own bodies could be made visible. It attempted to insist upon the experience and the very existence of women as important. Feminists have stressed the need for a 'reflexive sociology in which the sociologist takes her own experiences seriously and incorporates them into her work' (Helen Roberts 1981). Shodhini is an example of reflexive feminist action research. All of us, as women researchers, made visible our own concepts of our bodies, health and disease. No judgement was made about individual experiences, beliefs and practices that women shared. The attempt truly was to validate our experiences.

Shodhini also tried to integrate feminist theory, methodology and practice and to avoid the type of academic discourse that renders research findings inaccessible. We felt that when doing research with relatively powerless groups, research findings should be presented so as to be as clear as possible to those groups. At each step and in every

which way, the research findings were being made available to a larger community of women.

### **Meaning and Identity**

Our experience of action research affected us deeply. For all of us it was a reaffirmation of our identities as women, as individuals who can take charge of our lives and connect in meaningful ways with our consciousness as women. We share below some typical responses about why our co-researchers participated in the Shodhini experiment and what the experience meant for them.

*After going to the self-help group (with Rina) there has been a change in my life, in my practice and in my understanding. I have learned about how the body is made and how it functions, I did not know about my own body and how it feels to touch it. I learned how to examine and how to distinguish an infected vagina from a normal one. I learned about hormones and the menstrual cycle. Before, I did not know the importance of doing a physical examination. For three years now I have been doing this. Consequently, along with my increased awareness, adding to my existing knowledge and use of herbs, I have gained enough confidence to conduct meetings with local women and to share this understanding. I began visiting them in their houses to examine them whenever necessary. This built up a demand for the use of herbal remedies for women's health.*

*I wish to teach others the method of preparing and prescribing medicines so when I die, the art which I have learned will not die along with me. Other generations should continue with this.*

### **Halamma, Aikya healer**

*I had thought that excessive bleeding, white discharge, abortions, childlessness, etc., are dangerous and incurable diseases. I was also very shy and scared to discuss anything to do with the body; but after this training I learned that diseases are common to all women and that by the use of herbs we can cure such diseases. With this confidence and belief I started telling people about this. I learned that nothing is impossible in the face of persistent effort.*

### **Laxmi, a traditional healer, Aikya**

*After the loss of my first child, I used to live in constant doubt. Is there something wrong with my reproductive system? Do I have a congenital abnormality? Am I normal? The first self-help session helped me see that there is no abnormality in my organs. This lifted such a load off my chest.*

### **Smita, CHETNA**

Halamma, Laxmi and Smita are part of Shodhini, women from different economic and cultural backgrounds, who came together to create workable and empowering alternatives for our health as women. We

discovered our strengths and limitations, reaffirmed our beliefs and laid to rest our doubts both in ourselves as well as in the process of our research.

### ***Self-Help Approach***

The main aims of the self-help approach were to enable us to:

- ❖ look at health in a holistic way, as something conditioned by our physical, psychological, social, political and environmental situation;
- ❖ help us internalise the ethos of mutual support and sharing;
- ❖ demystify the knowledge of our anatomy and physiology through self-examination;
- ❖ learn different ways of remaining healthy.

### ***The Initial Self-Help Workshops***

A typical self-help group, in its first workshop, began by each member sharing the story of her body and the education received about it. In a quiet place where the women would not be disturbed by their children, each one talked about her personal life in specific relation to her body: "When and how did I learn about menstruation? What was I told about it? What and how did I get information about my body? What and how did I know about bodily pleasure? What are the health problems I experience - and if any have remained uncured, what is/are the reason(s) for them remaining uncured?"

The fund of information that was gathered by this exchange was indeed a revelation. Not only did it help us to identify the most common complaints and ailments of women that are neglected, but with each one's personal experience it motivated us all to get better equipped to confront those problems or complaints. Each person stated what her current symptoms were, if any. The resource person, would then go on to explain the philosophy of self-help and what we would be doing in these sessions. A self-examination session was also part of the first workshop - it was preceded by a session on our fears and modes of resistance and followed by a sharing of what the experience had been for us. Tools used for self-examination - speculum, gloves, mirror, torch - were another feature of the discussions in the first workshop.

The subsequent four or five workshops were women around the individual symptoms of group members. Step-by-step, we learnt on each other how to interview a 'client' and get a detailed case history, how to record this on the pictorial case sheet which was designed for this purpose, and how to arrive at a diagnosis. We learnt to include the nutritional and mental health aspects in our history-taking and also to provide support in dealing with the chronic and current stress factors.



### **History**

A format was developed to help us go systematically into the history of woman's experiences and stories. The format included:

- ❖ number of pregnancies
- ❖ number of deliveries
- ❖ major health events in the woman's life - serious illnesses from childhood onwards, any surgery, etc.
- ❖ first day of last menstruation and usual rhythm of the menstrual cycle (between first day of previous period until first day of next period)
- ❖ details of dietary intake
- ❖ details of any current stressor

This format helped us develop an understanding of the health of the client. The information was obtained through conversation rather than a formal, structured interview, with emphasis on developing sensitivity and empathy towards the women.

### **Observation**

Observation included general appearance. Is the woman too thin? Too pale? Worried or strained? What colour are the inner part of the lower eyelids, the tongue, nails, etc. Next we did an abdominal examination by touching and feeling for any signs of liver or spleen enlargement. A breast examination was also done.

### **Diagnosis**

What is the significance of all this information?

*Example 1:* the woman complains of excessive white discharge. Before giving the eventual remedy, we had to diagnose by our own observations whether:

- ❖ the secretion is really excessive or is it ovulation time
- ❖ there is an infection, inflammation, itching, pain
- ❖ the discharge is due to anaemia and malnutrition

The remedies that were prescribed need not be the same in the three cases namely, anemia, infection, hot/cold imbalance.

*Example 2:* the woman complains of excessive bleeding. We first had to make sure that we properly understood her story and bleeding pattern. We asked her;

- ❖ how long is the cycle normally (normal: 21 to 35 days)?
- ❖ is there any bleeding in between?
- ❖ how long is the menstruation itself (normal: 2 to 7 days)?
- ❖ how is the flow - light or heavy?
- ❖ how often do you have to change? (every 2-3 hours is heavy, every 1/2 hour is haemorrhagic).
- ❖ by examination: is the uterus enlarged and tender (pregnancy and abortion)? Enlarged and hard (fibroids)?

Here also, the remedies differed for each situation.

### ***Range of Workshop Contents***

The core of the curriculum was supposed to be made up of common gynaecological problems resulting from women's own stories. By the end of 1992, the curriculum evolved into integrating new aspects - use of government health structure, organising against violence against women in the community and also against malaria, scabies, diarrhoea, as these problems arise. Progressively, the Women's Health Workers also learned about preparation and preservation of herbal medicines - oils, powders, decoctions, pastes, tinctures; seed collection and preservation and propagation of plants.

Since the workshops were residential, usually on campuses of voluntary agencies, learning went on throughout the day and often late into the night.

As part of our approach for taking care of our bodies, we demonstrated inexpensive methods of cooking and eating wholesome and nutritious food and explained the value of food for health. The idea was to build habitual food practices which the women could follow at home. A small group of eight or ten of us lived together and there was plenty of opportunity to share details of our lives and our health problems, even informally, with our friends. The 'resource persons' picked up the topical needs from these informal exchanges. Sometimes the health workers also made direct requests for information related to particular topics. Depending on our state of readiness, we would either deal with the topic immediately or wait till the next workshop (generally after a month) so as to clarify our own concepts and find ways of communicating them simply and effectively.

We used illustrations in various ways. Group members were asked to draw the body as they knew it. As far as the women's drawings were concerned, the idea that was encouraged was that there is no 'standard' drawing. Each woman draws what she has viewed, using symbols that are her very own and has to finally explain her drawings to the others in

the group. From our experience, the drawings following the self-help examination process have been very educative.

### ***Dietary Changes Through the Shodhini Experience***

One of the attempts made by Shodhini was to examine nutrition-related practices and reinforce the concept of adequate and appropriate diet and its relationship to health. Explorations into locally available and locally consumed foods were very revealing. For instance, at a SARTHI workshop in December 1988, Sukhiben, a traditional herbalist and midwife, brought 23 different food items grown in her own field and courtyard. These ranged from *dodi* leaves (*Leptadenia reticulata*) and sunflower, to the more known foods like *channa* (gram) and *makkai* (corn). Uma reported a similar experience from Pastapur, Andhra Pradesh: “ In one of our Shodhini workshops we did a study of the greens available in our region and discovered 130 varieties available for consumption, but we are forced to eat cauliflower and cabbage for the major part of the year”.

The strategy in the self-help workshop was to reinforce dietary patterns which made use of the wide variety of locally available foods. Nutritiously, it is well-accepted that the wider the variety of foods we eat, the more balanced our diet is likely to be. Each of us who reported our symptoms in the self-help workshops were subjected to a barrage of questions which laid bare the details of the quantity, kind and periodicity of our food intake. The daily energy expenditure was also looked into. This nutritional history was then related to our symptoms and finally a diagnosis was made. The prescriptions were never restricted to the medicinal plants alone. Dietary advice making use of locally available foods was an important part of the healer's responsibility.

### ***Food as Medicines***

Another lesson that we learnt through the Shodhini experience was how food can be medicinal as well as prevent illness.

Raikadu Balamma is a popular healer in Pastapur, Andhra Pradesh. She treats swelling (edema) with fenugreek seeds, greens and ginger. She crushes a handful of fenugreek leaves and about 10 grams of ginger separately. She mixes these to make three tablets. The woman with the swelling has to take one tablet each morning for three days. Many women have been cured with this treatment.

Indian cooking uses a variety of spices as seasoning agents. Apart from their known attribute of taste, these spices also have therapeutic properties. We also discovered that a whole range of nutritive plants

like *Abutilon indicum*, *Tinospora Cordifolia* and *Asparagus racemosus* were used by women (to some extent) to meet their health requirements. For example, asparagus is taken to increase milk secretion. Similarly *Phyllanthus amarus* is a plant used by women as a general tonic and also to cure jaundice. *Tinospora cordifolia* is another plant which is used to treat fever and to improve body resistance. Amla is used as a general tonic.

### ***Other Healing Methods***

Several of us in the Shodhini network have been using other healing methods like yoga and meditation in the process of our health work in various field areas. These healing methods make a significant contribution to women's sense of well-being. Women are carers, constantly putting themselves last, suffering in silence; it is important that we realise how necessary it is for us to take care of ourselves, to love ourselves. Many of these other healing techniques mean taking time off and nurturing ourselves. Some of these methods are indigenous to the area (like certain massage techniques and working with pressure points) while others are 'imported' (for example, *yoganidra*, deep relaxation and visualisation).

*Yoganidra* makes use of a '*sankalpa*' or a resolve. The *sankalpa* is a simple, positively worded and purposeful phrase that you coin for yourself in accordance with your situation in life. Some examples of *sankalpas* selected by women are: 'I will gain control over my family situation', 'I will act with power and compassion in all situations'. 'I will be a positive force in the evolution of others'. *Yoganidra* and biogenics incorporate visualisation or positive imagery.

The implications of these concepts assume great significance when it comes to women's health. If women can train themselves to produce positive, powerful images of increased self-esteem, of being in control, of dealing constructively with threatening situations, then they set off a positive chain of physiologic activity within themselves. Thus, several of us who have been part of Shodhini consider deep relaxation and positive visualisation an important part of our self-help tools to invoke the feminine *shakti* within.

### ***Data Collection on Plants***

In nine different field areas, from six states, namely Uttar Pradesh, Madhya Pradesh, Gujarat, Andhra Pradesh, Karnataka, and Tamil Nadu, Shodhini members contacted local traditional healers. Through a process of establishing rapport with them, we began the task of collecting information on herbal remedies and natural local treatments

used to cure women's health problems. This was a challenging task. Women from different regions had their own terminologies to describe women's complaints; they had a variety of natural remedies for these complaints and used specific local names for herbs. We learnt that their knowledge of plants came, not only from their mothers or grandmothers, but also from a close observation of animals. Narsamma of Pastapur, A.P., said that once she saw a goat suffering from loose motions go to a pomegranate tree and eat its leaves. After a few hours, she observed that its loose motions had stopped. Next time, when she had loose stools, she decided to eat some pomegranate leaves and found that it worked for her, too.

### **Information Sheets**

To facilitate the action research, a comprehensive information sheet was devised, covering all essential information with regard to herbal remedies for women's health. Supplementing each information sheet, were herbariums to ensure that names of species could be identified and verified by Shodhini members, botanists or *vidyas*. The data collected by women was translated into English, cross-checked and verified through field visits to the forests and fields with the women who shared this knowledge with us. They showed us plants and trees which were of medicinal value and educated us in the process.

At the end of this period of data collection, all these information sheets and herbariums were scrutinised by Dr. Indira Balachandran, a botanist and a member of Shodhini. She confirmed and verified their medicinal properties with regard to symptoms and uses cited by the women.

In all, 411 sheets were prepared including 176 information sheets from secondary sources. We found that a total of 70 plants were recommended more than once for the same complaint from different regions, and some of them were cited twice or thrice by different healers in the same region thus reinforcing the field data. For example, plants like *neem*, castor (*Ricinus communis*) and *shatavari* (*Asparagus racemosus*) were being used in U.P., A.P., and Tamil Nadu for vaginal infections and menstrual problems.

Our final list amounted to 252 herbs growing across A.P., Karnataka, Tamil Nadu, U.P., M.P. and Gujarat. This field information was checked systematically against standard literature on medicinal plants. Herbs were categorised as A, B and C which we defined as follows:

- ❖ herbs mentioned in standard existing literature with the same properties and used for the same symptoms as the healers used them

- ❖ herbs mentioned in standard literature with properties which indicated they could be used for a particular women's problem but not for the symptoms for which the healers used them.
- ❖ herbs or recipes which seemed to be toxic and dangerous.

A total of 120 plants came under category A; 118 were classified as category B; and 14 plants were rejected and placed in category C as accumulated evidence indicated that they were likely to be toxic, and hence were not recommended or field tested by us. With this codification and classification of information, the first phase of Shodhini's work was completed by the end of 1990.

### ***Field Testing at Community Level***

The next stage of the Shodhini work involved field-testing of the 'A' herbal remedies by the bare-foot gynaecologists who were being trained through the self-help process. As mentioned earlier, we had short-listed vaginal infections and urinary tract infections, problems of the menstrual cycle, uterine and cervical tumours, problems during and after pregnancy and other neglected aspects of women's health problems, for the training and field testing. This phase of the work was carried out in four field areas in Andhra Pradesh, Gujarat, Karnataka and Delhi. This section illustrates the process through a few case studies of women who were healed.

#### **Lalibhen**

*Lalibhen Samarbhai of village Bhandara in Godhar, Panchamahals district, Gujarat, came to us during her final trimester of pregnancy with the complaint of heavy, curd-like, white discharge. She also had boils on her cervix and labia. The healer after examining her, and finding a white, curd-like, yeast infection recommended a vaginal tampon with neem leaves. And to clear the 'heat' leading to boils in her genitals, she gave her fennel (*Foeniculum vulgare*) with crystal sugar soaked overnight in a cup of water. Lalibhen drank this every morning on an empty stomach for 15 days, by which time she was cured and delivered her baby safely.*

#### **Rangamma**

*Rangamma from Krishnapur was the mother of three children. She complained of yellow-coloured, smelly and heavy vaginal discharge with which she had been suffering for two months. She also complained of pain during intercourse. She had been advised to use garlic for 3 months, and also wash the vagina, while bathing, with neem leaf decoction. She was completely cured in 3 months, especially after her husband also co-operated by taking garlic orally and using condoms. Another woman in the same village was not cured because her husband did not co-operate, though she followed the same regime.*

In practice, all vaginal infections are not fully cured with just herbal treatment. We came across many instances during the Shodhini monthly workshops, in different regions like Andhra, Karnataka and Delhi, where women were not cured of their vaginal infections despite the use of garlic or *neem* as prescribed. On further inquiry, we found that these women were not getting any co-operation from their husbands, who neither availed of the treatment, nor did they use condoms, thus re-infecting their wives.

Also, for effective healing of chronic vaginal infection, it is essential to simultaneously improve one's diet, take rest, minimise stress and anxiety, and continue the herbal treatment regularly for at least three months. In spite of the above approach, if the vaginal infection still does not respond to herbs and is not cured, then it is advisable to consult a gynaecologist for a Pap smear and for further treatment, as the infection may be higher up near the cervix (cervicitis), or may be a uterine infection.

Often, there is a mixed infection of trichomonas and other bacteria. When the infection is not fully cured by only garlic it is advisable to also use *neem* or *Tinospora cordifolia* (amruthavalli) with garlic to clear the infection. The treatment of Sudha from Sabla Sangh, Delhi, is a case in point.

### **Sudha**

*During the second workshop with Sabla Sangh, one of the women, Sudha, was recommended the use of shatavari (Asparagus racemosus) for her white discharge problem. But even after 15 days of treatment she did not experience any relief. In the next workshop, when she was examined, it was clear that she had a mixed infection, the symptoms being yellowish-green, heavy, foul-smelling, discharge along with itching and inflammation of the vagina. Then she was advised to use a neem leaf tampon and orally consume garlic for a month. She was cured of the mixed vaginal infection.*

### **Veeramati**

*Veeramati came to a Shodhini workshop with a problem of burning urination. We began by talking about our food habits, focusing on our pattern of water consumption. How much water do we consume every day? Are we aware that we each need about 2-3 litres of water daily to be healthy? Such a review helped us to understand the link between water intake and urinary tract infection. Slowly by probing and listening to her story we were able to discover the main reasons for her urinary complaint. It became clear that due to her busy work schedule, stress and*

*pressure of daily travel, she neglected the practice of drinking enough water daily. This resulted in urinary infection with symptoms of reduced flow of yellow urine and a burning sensation. She was advised to drink plenty of water and this treatment began during that very workshop. At that time the idea of water treatment seemed too simple to be effective in solving her problem. However, after she made a regular practice of drinking plenty of water, she began to regain weight and was cured of burning urination. Her experience was an eye-opener for us all in understanding the value of water consumption to prevent urinary infection.*

### **Conclusion**

Shodhini was a complicated experiment involving a number of individuals, organisations and village level women from various parts of India. Although Shodhini as an idea has immense political significance, the scale at which it could originally be tried out was miniscule. Ultimately only four field-based groups participated in the community testing phase. The range of symptoms or problems that could be taken up was extremely limited. However, in the intervening years the idea of Shodhini has caught on. Third and fourth generations of bare-foot gynaecologists, who treat reproductive health problems with local and tested herbal remedies are being trained. Male health workers who can treat men for sexually transmitted diseases and for other reproductive and sexual health problems are also being trained. The basic feminist philosophy of Shodhini has been adhered to in an effort to promote gender equitable relationships between men and women.

### **Annexure**

#### **Most Useful Plants**

**Antiseptic:** These plants counteract the growth of bacteria and thus cure infections.

Amla/Indian Gooseberry (*Phyllanthus emblica*) - fruit is consumed either raw or in dried form.

Ajwain/Omum (*Carum copticum*) - seeds consumed orally.

Amrithavalli (*Tinospora cordifolia*) - decoction of stem for oral use.

Garlic (*Allium sativum*) - raw pods are used, also in the form of a paste, both orally consumed and for external use.

Turmeric (*Curcuma longa*) - raw paste of the root, also in powder form, both for oral and external use.

Tulsi (*Ocimum sanctum*) - leaf juice or leaf paste for oral and external use.

Neem (*Azadirachta indica*) - leaf juice, infusion or paste, for both external and oral use.

Shatavari (*Asparagus racemosus*) - root paste/decoction (along with milk) for oral use.



**Astringent:** These plants act as agents which contract body tissues, remove fluid from them and check bleeding, thus reducing discomfort and pain.

Amla/Indian Gooseberry (*Phyllanthus emblica*) - fruit in raw or dried form for oral use.

Ashoka (*Saraca asoca*) - bark as decoction for oral use

Aloe/Kumari (*Aloe vera*) - pulpy stem as paste/decoction both for oral and external use.

Babul tree (*Acacia arabica*) - bark as decoction for oral use.

Flame of the Forest (*Butea monosperma*) - bark as decoction for oral use.

Tamarind (*Tamarindus indica*) - bark as decoction for oral use.

Mango (*Mangifera indica*) - bark as decoction for oral use.

Touch-me-not (*Mimosa pudica*) - full plant as decoction, also in powder form for oral and external use.

Shatavari (*Asparagus racemosus*) - root paste/decoction (along with milk) for oral use.

**Sedative/Antispasmodic:** These plants counteract sudden muscular contractions, relieve pain and are soothing in action.

Malabar nut (*Adhatoda vasica*) - fresh leaves as decoction/paste for oral use.

Ajwain/Omum (*Carum copticum*) - seeds consumed orally in form of paste or eaten raw.

Amla/Indian Gooseberry (*Phyllanthus emblica*) - fruit in dried or raw form for oral use.

Licorice/Athimathuram (*Glycyrrhiza glabra*) - root decoction for oral use.

Tulsi (*Ocimum basilicum*) - leaves and seeds as decoction, paste for oral and external use.

Indian sarsaparilla (*Hemidesmus indicus*) - roots as decoction for oral use.

**Nutrient:** These plants are excellent tonics for anaemia and general weakness.

Amla/India Gooseberry (*Phyllanthus emblica*) - fruit in raw or dried form, for oral use.

Shatavari (*Asparagus racemosus*) - root paste/decoction (along with milk) for oral use.

Amrithavalli (*Tinospora cordifolia*) - stem decoction for oral use.

Garden cress (*Lepidium sativum*) - seeds used as porridge for oral use.

Coconu (*Cocos nucifera*) - tender coconut water and fruit for oral use.

Bel/Woodapple (*Aegle marmelos*) - fruit used as a cool drink

Methi/Fenugreek (*Trigonella foenum graecum*) - leaves cooked and consumed

Mango (*Mangifera indica*) - ripe fruit is eaten

Papaya (*Carica papaya*) - ripe fruit is eaten

Country mallow (*Abutilon indicum*) - leaves eaten fresh

Babul tree (*Acacia arabica*) - gum is soaked or fried in ghee with sugar and consumed.

Ashwagandha (*Withania somnifera*) - roots used, also in powder form, decoction with milk, for oral use.

**Anti-inflammatory:** These plants check the occurrence of inflammation in our bodies. The examples given below are also estrogen-like plants.

Licorice/Athimathuram (*Glycyrrhiza*) - Refer Sedative list.

Shoe flower (*Hibiscus rosa sinensis*) - flowers as infusion, past along with cumin seeds and milk, for oral use.

**Immunity Promoter:** These plants help to counteract infection and promote resistance to illness.

Amla/Indian Gooseberry (*Phyllanthus embica*) - fruit is consumed either raw or in dried form.

Indian sarsaparilla (*Hemidesmus indicus*) - roots as decoction for oral use.

Touch-me-not (*Mimosa pudica*) - full plant as decoction also in powder form for oral and external use.

Amrithavalli (*Tinospora cordifolia*) - stem decoction for oral use.

Drumstick tree (*Moringa oleifera*) - leaves and fruit, cooked and eaten.

Country mallow (*Abutilon indicum*) - leaves eaten fresh.

HEALTH SYSTEMS  
**Dai Vidya:**  
**The Traditional Science of Childbirth**

*Deepti Priya Mehrotra*

***Indigenous Childbirth Knowledge: the Practitioners***

*Extract: from workshop with dais of Jehangirpuri, in Delhi, August 1998*

*"Tara Dai: Before a birth we always pray to Devis and Bhagwan for support. The baby comes only when Bemata says it is time -- not before or after. So we never tell the jacha to push too soon....*

*One day a pandit said to me you come to the temple everyday but the work that you do is dirty. Then I asked him how is it dirty? I have no knowledge so you tell me. He said you pick up so much of gandh (filth) and then come to the temple.*

*I told him that if we were not there then how would you be here? First you give me an answer for this. If not me then one of my sisters must have helped to deliver you and then only you became a pandit. Some dai only must have helped in your delivery.*

*...We ask Bhagwan to give us shakti (energy, strength) so that the work does not get spoiled and we have izzat (respect) from people...".*

Tara is a representative of the contemporary *dai* in India. She is from Pratapgarh in east U.P., and migrated to Delhi some three decades ago. She lost her husband and subsequently brought up six children solely on the basis of her earnings as a traditional midwife. Hard working and adaptable, she is ready to learn new skills and techniques - from other *dais*, health workers, doctors or in governmental *dai*-training courses. Over the years Tara has conducted a few thousand births.

At the same time, she is bitter not only about the work being considered 'dirty', but also about the low rates of basic monetary recompense. Bringing up children on this work is, she notes, extraordinarily tough. Other *dais* are in agreement on this - however hard they may work, the returns are barely sufficient to feed a family.

Tara is confident, articulate -- yet denied any status in the official health system. For the medical bureaucracy and powers-that-be in the country today, *dais* are hardly worthy of recognition or respect. From their point of view, *dais* seem to be useful only as scapegoats. No serious

thoroughgoing effort has been made to integrate them, with due respect for their expertise, within the public health system. Instead, official documents call them 'untrained birth attendants' - ignoring the years of apprenticeship-training that a woman typically goes through before she works independently as a *dai*.

Traditional birth knowledge is detailed, rich and highly sophisticated. It is this legacy that the *dai* preserves, honing and adapting it to changing contexts. She is a repository of knowledge about women's bodies, birth and fertility. *Dais* have no dearth of clients. In rural India, and also in the slums where the majority of India's urban population lives, the *dai* is still the quintessential birth professional.

All over the country, ordinary people have tremendous respect for the *dai*. Despite a half-century of neglect by the state and the public health system, *dais* are called in for critical support during childbirth in the majority of homes. The traditional knowledge and practices have survived despite a concerted campaign and state intention to create a network of state-run health centres for institutionalised birth, which were supposed to supplant the prevalent home birth system.

According to the NFHS-2 figures, 65% of deliveries today are at home. In rural areas the figure is 74%. Half of the home deliveries are conducted by *dais*. Women of the household conduct the other half. This brings us to one of the most valuable aspects of traditional childbirth knowledge, that is its decentralised nature. Basic knowledge *as regards normal birth* is shared by millions of ordinary women. These women are generally quite competent to handle the births in their own families. Their competence arises from a system of careful exposure to childbirth, from an early age, and teachings passed on by women of the family, from one generation to the next. This is oral learning, learning-by-doing, and learning-by-observation: monitored by the knowledgeable elders.

*Dais* are called in either by families which do not have enough expertise within their own circle of women members, or if there is a complication in the pregnancy or/and birth. Various systems operate in different parts of the country. In rural Bihar for instance, the *jajmani* system is prevalent, under which the (typically low-caste) *dais* are bound, by feudal custom, to serve certain (middle and upper caste) households. This service includes the work of child delivery. Recompense is determined with a still-prevailing feudal system of obligations and rewards. In Rajasthan, *dais* hails from various castes, and typically practice within their own caste circle. In the urban milieu, caste restrictions have rubbed off to a greater or a lesser extent. In Delhi, there

are not only *dais* from various castes, with a mixed-caste clientele, but also Muslim, Hindu and Sikh *dais* with a mixed-religion clientele.

The *dais'* expertise is widely acknowledged by the communities she serves. Often she is a specialist not only in childbirth, but also various kinds of gynecological ailments. Yet, she remains poor, and underpaid.

The low status of *dais* at an ideological level is congruent with the pervasive devaluation of all traditional '*women's work*'. This devaluation exists within tradition - for traditionally the *dai's* work is labeled '*dirty*' and polluting, and in many parts of the country she is regarded as untouchable. Nor have the modern state and its ideologues done anything, so far, to acknowledge her expertise and accord her due status within the contemporary '*public health system*'. The state does not even recognise the *dai* as a health professional, who is trained and practices within a tried-and-tested system of knowledge. Whereas popular culture at least acknowledges her considerable expertise, yet the modern state continues to devalue and ignores her skills and knowledge.

Because indigenous knowledge of childbirth is decentralised, it has not led to the creation of entrenched hierarchies. The indigenous system of childbirth is woman-centred. It honours the knowledge and experience of women. These are typically women who are not literate. They have learnt from an unbroken tradition in which bodily knowledge has been handed down from one generation to the next - a live process, born out of necessity. Women have learnt from life, from exigencies, and used their whole being to understand, learn and act in the required manner. They realize the gravity of the responsibility they undertake when they support a birth: "We are swinging between life and death", they say.... "Our hands hold the baby, but it is Devi/ Bhagwan that guides our hands". There is a deep appreciation of the intricacies of both birth, and death.

The *dai* typically exhibits a worldview wherein she sees herself as '*gifted*' -- '*blessed*' - somebody who understands cosmic forces and is able to work with these energies. Since this is her overall context, she remains humble. There is a respect for childbirth as a cosmic event, and a sense of personal dignity about being invited to participate at such a significant point in people's lives. Many *dais* are women who value autonomy, are good decision-makers, and valued advisers to others in their community. If there is one thing in common between *dais* from various parts, it is a healthy sense of deep respect for the own skills, methods and techniques that they use.

The *dais'* methods and expertise have not received adequate attention from researchers, whether in the medical sciences or the social sciences. There is a need to fill this lacuna. It is important, and urgent, that this traditional knowledge system be studied seriously. This basic research will provide guidelines for further understanding the actual ground facts about childbirth in this country -- as well as about maternal as well as infant mortality and morbidity.

Our research indicates that it is highly irresponsible to assign the blame for maternal deaths at the door of *dais* (or other home birth facilitators). There is barely any research data to back this assumption. Prejudice (middle-class/ biomedicine-oriented/ modernist) needs to give way to a reasoned, logical look at the actual realities on the ground.

The first question we need to ask is - in situations of extreme poverty which characterise much of Indian homes, how at all are babies being born, how at all are lives of women and children being saved? Once we begin to understand this, we can then proceed to inquire into the causes of mortality and morbidity.

#### *Dai Vidya -- Knowledge, Skills and Practices*

As a first step, *dai vidya* -- the *dais'* knowledge -- needs to be systematically documented.

The *dai's vidya* is detailed. This knowledge is based on empirical observation, extensive experience, experimentation, intuition and empathetic understanding. Over the centuries, a sophisticated knowledge of the process of childbirth, the skills and techniques required for facilitation, as well as ante-natal and post-natal care, has evolved.

Traditionally, this knowledge is passed on orally and through actual hands-on instruction. To become a *dai*, a woman usually learns from an older *dai*, with whom she apprentices. The training period may extend over several years. Several *dais* say they did not begin to practice independently until after the death of their *guru*.

Older *dais* -- who have learnt their skills through years of apprenticeship -- are confident. They know what they are about, because efficacy has been proved through practice and long experience. They know of diverse possibilities, complications, methods and techniques. In the beginning they were assigned relatively minor tasks during a birth - boiling blade and thread, preparing 'hot' drinks such as milk and jaggery to speed the labour, cleaning the baby -- and gradually learn to take on more skilled tasks. After attending a large number of births, they finally feel able to take up cases independently. Through intimate experience of various births, they gain expertise. They call upon the wealth of their experiences

in guiding other women through pregnancy and childbirth. They are accessible, and accountable, to the community in which they live, and practice. Thus they earn the acceptance, trust and confidence of the community. Usually *dais* who exhibit incompetence are simply not called at all for more births - since reputation is built up through word of mouth, based on actual proved competence.

Typically, a number of older women assist with childbirth within their families and neighborhoods. When called upon during a birth, the *dai* is assisted by women who are close relatives or friends of the woman in labour. They know her well and are therefore able to gauge her individual requirements.

Many of these women develop sufficient expertise, through experience of their own births and attendance of a number of births in the extended family, to independently handle normal deliveries within the family. Diverse cultural practises determine who handles who's deliveries, for instance in rural Bihar mothers-in-law and sisters-in-law in the marital home commonly handle home births, rather than mothers or sisters. In rural Rajasthan however, it is not uncommon to find mothers being the birth facilitators for their daughters. All these women share techniques in common with *dais*, and acknowledge her expertise. In case of any trouble, doubt or complication, they call upon the *dai* for support.

*Dai vidya* has well-defined categories, which have developed logically, based on the empirical observation of innumerable childbirths. Broadly, the perinatal period begins with 'the opening of the body'; this is followed by 'birth'; and then finally 'the closing of the body'. There are detailed and sophisticated observations regarding each of these stages. These observations detail normal patterns, while allowing for a range of variations. *Dai vidya* details the normal pattern by which the body opens up. Included are techniques by which this opening up may be facilitated and encouraged. When called upon during a birth, the *dais* encourage the birthing woman to turn inwards, and focus her energies upon the challenging and demanding task she is performing. The *dai* encourages the *jacha* to use her *shakti* (strength) in a concentrated manner. She gauges varied requirements, and provides support through skilful means and techniques. These techniques include fomentation, massage, 'hot' drinks, herbs and potions, and psychological soothing and encouragement, e.g. recounting stories of other births; and opening up all knots and locks in the room, hair and clothing. Bodily movements are tracked in minute detail, and the opening facilitated by perineal massage.

The birth follows in due course. Traditional *dais* are strongly critical of the use of force (pushing) in the period of '*kacha dard*' (first stage of labour, or 'soft' contractions). Their knowledge tells them that, if appropriate environment and facilitation is provided, the birth will take place smoothly and naturally. It will take three or four '*pakka dards*' ('hard' contractions) for the birth to take place.

*Dais* disapprove of the easy use of injections ('*sui*' - oxytocin/syntocin), for which they see no need. Not only is there no need, their observation is that the practice is often harmful, and can result in damage to the *bachadani*. (womb). They themselves wait, until the time is ripe. They definitely prefer to go along with the rhythm set by nature. Sometimes oil may be applied gently to the perineal area, so as to bring the muscles to a state of maximal flexibility. Due to these methods, there is hardly ever a perineal tear during birth. Episiotomy (perineal cut routinely performed by doctors) is a practice most *dais* thoroughly disapprove of. They point out that not only is it totally unnecessary, it is also violative of the body's integrity.

*Dais* encourages the birthing woman to walk around and be active during the early contractions, and usually ask her to squat, or be on all fours, for the actual birth. These birth positions allow the woman's strength to be utilised fully, as well as using the force of gravity in favour of a smooth delivery. Also, the *dai* or other support person is able to hold the birthing woman and apply counter-pressure at the lower back, which is always helpful, sometimes critically so, for the baby's downward passage through the birth canal. It is only if the birthing woman is very weak, or multigravidae and with a history/danger of uterine prolapse, that she is asked to lie down for the birth.

The *dai* and other women present provide physical as well as emotional support throughout the birth. They help to build the birthing woman's confidence and courage, and dispel any fears she may be experiencing. This they do by providing her with affectionate encouragement, telling tales of other births, narrating their own experiences - bringing in humour which is often frankly bawdy.

*Dais* are able to routinely handle normal (*seedha*) and breech (*ulta*) babies, as also twins. Frequently they are able to manually rotate the baby, sometimes during pregnancy, and sometimes during the early contractions, so that the baby is in the *seedha* position.

There are a number of facilitation techniques for the delivery of the placenta. These include gagging, massage and skilful manual removal. If the baby is weak or drooping, the *dai* immediately undertakes placental resuscitation -- milking the cord in order to send heat and *ji* (life-force) to



the baby. If this proves insufficient, the placenta may be heated, which often revives the baby. Only after this is the cord cut.

*Dais* closely monitor blood outflows -- fresh red blood is a sign of danger. Clots may be removed by pressing the *jacha's* abdominal area, with force. In Bihar, the *dais* see to it that the '*Ganga-Jamuni*' are shed -- blood clots which become harmful if they remain in the body beyond the time that they serve a purpose.

The placenta is carefully buried. Traditionally the placenta is seen as a twin of the baby: something to be valued because it has nurtured the baby during the nine months of pregnancy. It may be buried in the mud courtyard, at a place where water flows.

Post-partum, the *jacha's* body usually has a '*gola*'. This is energy associated with the now-empty womb, or/and blood clots, or/and wind, or/ and fire, or/and the uterus itself, or/and Bemata searching for the baby, or/and *mamta* (mother-love) There is a specific pain associated with *gola*. The *gola* will gradually be expelled, dissolve or disappear. The *jacha's* body is massaged in special ways, and special herbs, potions and food items are fed to her.

*Dais* pay special attention to the '*jacha*' during this period -- the phase of the closing of the body. The traditional techniques of post-partum care are incomparably more detailed than anything that exists in the biomedical system. Traditionally it is believed that all manner of spirits, infections, and winds may enter the body during this time. Therefore it is associated with danger, and various protective measures taken. Fomentation (often using '*ajwain*' in boiling water) and '*aidi dena*' (application of pressure, using heels, against the *jacha's* pelvic region) are common practices. The *jacha* is to lie with her legs crossed. The abdominal area is tied securely with a long piece of cloth. The period it takes for the body to close is usually identified as about 40 days. The *jacha* is supposed to rest during this period (although this is not always possible in practice), and also concentrate upon her baby. Breast-feeding is considered important for the infant's health, and it is acknowledged that this requires special work on the part of the mother as well. Special food preparations are made for ensuring milk production, as also to bring back the *jacha's* strength.

*Dais* identify a number of possible complications during birth, many of which they handle. They are aware of some complications being beyond their capacity to handle, as in the case of babies that remain transverse (*terha*) upto the last stages. In such situations, they will refer the woman to a senior *dai*, or a doctor or health centre. Sometimes there are

situations when emergency help is required, which could not have been foreseen in advance. Post-partum haemorrhage is one of these situations. *Dais* are keen to have support, help and concrete advice about how to handle such situations. Sometimes other, more experienced *dais* are able to help out the younger ones, in dealing with complications. This points to the need for greater encouragement of a process of learning, *within* the community of *dais*. *Dais'* knowledge keeps getting refined through practice. Therefore, older *dais* often are much more confident of their skills than younger ones. This is particularly true if the younger *dais* have got somewhat disoriented because of contradictions between traditional knowledge on the one hand, and modern methods on the other.

**Dai Training:** Building upon Indigenous Knowledge, or Ignoring it Altogether?

The existence of *dais* has been acknowledged by the public health system typically only through the efforts to 'train' them. This training generally fails to understand that *dais* are already steeped in a particular knowledge system. Any meaningful training will begin with this understanding, and build therefrom. Instead of which, the prevailing mode of *dai* training ignores the existing expertise altogether.

The following conversations between *dais* throw up some of the relevant issues in bold relief --

*Extract: from Delhi workshop, August 1998*

*(Organised in collaboration with 'Action India', with dais from Jehangirpuri, Nand Nagri and Seemapuri.)*

*Facilitator: What kind of difficult cases do you refer to hospital?*

*Pushpa dai: If the mouth of the bachadani (womb) is not opening...*

*Naseem dai: If the pain is not poora (complete and full) then how will it open?*

*Pushpa dai: What if the pains are there for three days, still it does not open?*

*Kaushalya dai (is older and more experienced): Don't feel bad but if you put tel ka ghera (oil on perineum) then it will open.*

*Pushpa: That is why I am saying I want more training!*

*Facilitator: But what Kaushalya is saying is not in the dai-training these days.*

*Pushpa: We want to improve and fill the lack in our knowledge.*

*Dai: Should the knowledge of experienced dais be included in dai-training programmes?*

*Kaushalya: Yes!*

I have found that *dais* are willing -- in fact keen -- to learn more, to augment their knowledge and skills. But the standard 'dai-training'

models followed in this country simply do not acknowledge the rich knowledge that the *dai* already possesses. Instead, they arrogantly speak down to her, treating her as ignorant, because she is illiterate. In so doing, they exhibit their own ignorance: for in fact knowledge has throughout history passed from one generation to the next, through practice as well as by precept. Practical knowledge does not necessarily need to be mediated by the textual mode of transmission.

*Doctors and other proponents of the biomedical system are seldom even aware of the dai's methods. Their views and opinions do not spring from any serious evaluation of one system vis-à-vis the other. Yet they attempt to impose the modern system, overriding the traditional.*

They ignore the fact that *dais* conduct childbirth in conditions of acute poverty, with barely any resources at hand -- conditions in which many doctors would actually find it impossible to function.

*Extract: from workshop in May 1998, in Rajasar village, Rajasthan (In Bikaner district, 'Urmul Trust' has been organising dais for the past few years. They consider the dai to be the fulcrum of their health programmes. At the same time, they carry out 'dai-training' programmes.)*

*Senior Urmul health team organiser (to dais): Please tell clearly what you learnt from dai-training programmes, and also if you have any problems.*

*Jadau (dai): We have learnt a lot that is useful. But some of it is not.... We are expected to use mainia (plastic sheets) for deliveries. But we do not like them.*

*Facilitator: What do you prefer to use?*

*Paana Bai (dai): We prefer sand. This is what we have always used. Sand soaks in everything.. On plastic sheets, everything gathers - blood, urine, shit.... Just looking at it, the jacha feels unwell!... We bring sand and keep it in an earthen pot. We know which sand is clean, which is dirty. We get clean sand, and heat it if needed. .*

*Other dais: Another thing is that we do not cut the cord until the placenta is delivered.... We use the placenta to resuscitate the baby if it is not breathing.... In the hospital doctors have machines and medicines, we do not have all those things.*

**Organiser:** *Even we are not sure about this, but we teach it. The dai-training module has come to us from government and other agencies. We ourselves are not convinced why plastic sheets should be used, or the cord*

*cut before placenta-delivery. We respect the dais. We would very much like to create our own dai-training material, using the dais' knowledge.*

Granting that there is scope for the *dai* to learn further, and augment her basic repertoire of skills, it is clear that her own expertise cannot be discounted. If she is to be trained, she should also be utilised as trainer. *Dais* are keen to learn about new methods and techniques, which they examine critically, and sometimes integrate in order to fill gaps in their knowledge and practices. They note that environmental conditions and women's lives are changing rapidly, giving rise to new ailments and complications, which they need support in order to handle effectively.

### Integration and Balance of Systems

It is unwise to pose the broad choice in fundamentally oppositional terms -- *dai* versus doctor, home versus hospital etc. It is wiser to look towards mutual learning, accommodation, and a viable and caring public health system built on the model of decentralised, culturally accessible, woman-sensitive birthing, with wide access to the best of appropriate medical assistance.

Normal childbirth is best handled at home, in a familiar environment, with familiar persons at hand, and a midwife (*dai*) from the community. This system is still intact, and efforts should be made to support and preserve it. Along with this, there is need for backup services provided by the state. For the small percentage of cases in which medical techniques are called for, a systematic network of requisite services is essential. This will include emergency care, equipment and personnel for life saving and surgery, as well as provision for emergency transport.

There is much to recommend this approach. Culturally and economically, the system of home births is obviously preferable to a system of institutionalised births. But even as a knowledge system, the indigenous practices are in some ways more detailed and sophisticated than the modern.

*Dai vidya* embodies a holistic approach to childbirth. Modern science on the other hand deals with the body as a quasi-machine. *Dai vidya* appreciates childbirth as a natural process, which is affected by the birthing woman's whole being and attitude -- conscious as well as subconscious. *Dais* respect the role of a whole web of relationships that the woman and child are part of-relations between human beings, with nature, and the supernatural. Their worldview respects the woman as a whole -- not only as a body. In contrast with 'modern' (Cartesian) science, which posits a radical split between mind and body, and ignores any spiritual dimension altogether, *dai vidya* respects and incorporates a

continuum between physical, emotional, mental and spiritual. There is an internal consistency and logic.

Holistic health systems presently being developed in the west, as advances beyond reductionist 'modern' science, are based on a similar respect for the body-mind-spirit continuum. Some advanced systems, such as eidetics (which claims to cure acute ailments such as multiple sclerosis through the use of guided imagery), and psychoneuroimmunology -- have a startling resonance with elements of traditional *dai vidya*. For instance, the opening of knots, during the first stage of labour, works at subconscious levels and actually encourages the *jacha's* body to open up. Clearly, the traditional system has been constructed within particular, and complex, cultural frameworks. The process of birth is understood as 'natural', yet guidance and interventions are provided at very sophisticated levels. *Dai vidya* perceives conception, pregnancy and childbirth as intrinsically 'normal', rather than pathological. The female body and persona is respected as fit and capable to do the work of birthing. In contrast, in the medicalised understanding, the female body and persona often seem to be inherently defective, unpredictable, and inept. The traditional system is woman-friendly and woman-controlled, whereas institutionalised births pay scant respect to the personal of the woman.

It is interesting that *dais'* methods across the country have a lot in common. These methods are congruent with midwifery practices that existed historically in other parts of the world, whether Europe, Africa, Latin America or Asia -- intricate systems that had evolved over centuries. The knowledge was relatively decentralised, being widely possessed by many women of the community. Of these, some were recognised as specialists, and their skills respected and solicited.

In the West, with the ascendancy of modern science, traditional midwifery was systematically delegitimised, denigrated, and stamped out. Modern science grandiloquently passed judgment on existing traditions, whether in health, agriculture or any other field. In declaring the supremacy of its own methods, alternative ways of cognition and perception were deemed invalid. This was vividly demonstrated by witch-hunts of the seventeenth century. From the accounts of trials of accused women, it is clear that many of them possessed extraordinary powers of healing. Medical science was at that time being established in Europe, new universities opening up for the training of physicians. These modern professionals were among those actively engaged in the elimination of female healers. The central point at issue was not whether the skills and knowledge these 'witches' possessed were effective, rather it was the inappropriateness - and danger -- of untrained non-professional women having access to such specialised knowledge. Thus, with the ascendancy

of a 'masculine' science, alternative methods of healing, and explanations contrary to the new beliefs, were violently suppressed.

In promoting 'objective' science, other ways of knowing were no longer acceptable as means of valid cognition. Knowledge gained through emotions, through everyday ordinary experiences, through the body, through practice, through intuition, through religious insight or inherited tradition: were all delegitimised. They are all relegated to some shadowy, unsubstantial sphere, of 'subjectivity'-a sphere haunted by feminine energies.

In the West, traditional childbirth techniques had lost the battle to modern medicine, by the nineteenth century. The establishment of modern gynecology and obstetrics reads like a horrific tale of ruthless power -- the rising medical establishment systematically and progressively crushing out every trace of traditional methods.

By the second half of the twentieth century, the women's health movement in the West began to develop a critique of the violative and invasive nature of modern medicine, particularly with regard to childbirth. 'Natural childbirth' began to be excavated in the West -- and reinvented. Home births are today being re-created as a viable option. No longer are episiotomies (still administered routinely in clinical births in India) uncritically accepted. Nor are syntocin drips (becoming very common in contemporary India for speeding up births) accepted as a norm. Loved ones are allowed to participate in the birth, as support persons.

The contemporary denigration of dais in India is in some ways a replay of European witch-hunts. In advocating respect for the traditional systems of childbirth in India, it will be well to keep this historical parallel in mind. The significant difference in status between dais and doctors in contemporary India is linked to the derivative nature of 'development', or modernisation that we are experiencing. The doctor is considered superior because he/she is aligned to certain key processes of modernisation. The medical system is a key part of modern science, and therefore integral to current notions of development. State agencies and public health policies help legitimise doctors, and impose the modern medical system into the realm of childbirth. As the other side of the coin, they help to delegitimise the traditional systems. They are doing so without making any comprehensive and systematic evaluation of the doctors' methods, vis-à-vis the dais' knowledge. The result is a lot of confusion today in the realm of childbirth. There is a danger that in this confusion we may lose out on many methods which dais have practiced over the centuries, but which are not understood by modernists. It is

also true that dais today are often confused between the different systems. Often they adopt a pick-and-choose method - going in for a month-long 'dai-training' course basically for the certification; calling a Compounder to give syntocin injections because the family is asking for it; or simply beginning to practice before learning the requisite skills from a senior dai. State agencies are responsible for creating a great deal of confusion, by campaigning for the biomedical model and failing to carry out any realistic research on the dai's system, or provide for recognition and a practical, grounded system for childbirth for the country as a whole.

The best solution, of course, will be an appropriate combination of the different modalities of birth. Whereas home births are usually the best setting for normal births, emergency measures for some births require access to clinical care. The need of the hour is for mutual dialogue and understanding, leading to the designing of creative and viable possibilities in childbirth, for all Indian women.

## HEALTH SYSTEMS Panchkarma

*Darshan Shankar*

Modern India has experienced an unusual yet perfect blend of the traditional and the modern in both domestic as well as in the international arena. On one hand, Indian Information Technology is being hailed as a power to reckon with, and on the other, the traditional Indian knowledge systems like Ayurveda, Yoga, etc. are being considered seriously as a health option. More and more people from all over the world are flocking to India to get Ayurvedic opinion on their health issues. Panchakarma clinics can now be found everywhere, including star hotels and holiday resorts. It is important, at this juncture, to know what panchakarma is. As this write-up is mainly for the common reader, only minimum information has been imparted. For a more detailed study, one has to get in touch with an Ayurvedic physician or refer to relevant books.

### ***Introduction***

The objective of Ayurveda is “*Svasthasya svasthya rakshanam athurasya vikaraprasamanam*”, which means to protect the health of the healthy and to relieve the suffering of the sufferer. To achieve this objective, Ayurveda advises different methods of treatment. One of the classifications is as follows:

### **Treatment (Upakrama)**

Langhana (depleting)	Brimhana (nourishing)
Sodhana (purification)	Samana (pacifying)
Vamana (emesis)	Pachana (using digestives)
Virechana (purgation)	Deepana (increasing digestive fire)
Vasti (enema)	Kshut (hunger)
Nasya (nasal medication)	Thrit (thirst)
Rakta moksha (blood letting)	Vyayama (exercises)
	Athapa (sunlight)
	Marutha (wind)

There are two types of treatment (*upakrama*) mentioned in Ayurveda - *brimhana* (nourishing) and *langhana* (depleting). These are also known as *santharpana* and *apatharpana* respectively. *Langhana* or *apatharpana*



(depleting) is divided into further two categories. They are *sodhana* (elimination) and *samana* (pacifying). *Sodhana* is the elimination of waste materials accumulated in the body through a series of treatment processes and *samana* is pacifying of the condition. *Sodhana* is done when there is *prabhoota dosa* (excessive accumulation of waste materials) where as, *samana* is done when there is *alpa dosa* (less waste materials). In today's Ayurvedic treatments most of the practices like taking medicines or massages and steam baths fall into the category of *samana*.

### **What is panchakarma?**

*“Nirooha vamana kaya sirorekosravisrutaya iti pancakarmani”*

(Astanga hrdaya, sutrasthana, 14/5)

Panchakarma literally means five actions or techniques. They are *vamana* (induced vomiting/emesis), *virechana* (purgation), *kashaya vasti* and *sneha vasti* (two kinds of medicated enemas with decoction and unctuous material), *nasya* (nasal medication) and *raktamoksha* (blood letting).

A major therapeutic use of panchakarma is purification (*sodhana*) of the body. But panchakarma is also widely used for pacifying and rejuvenating purposes. So it has to be understood that panchakarma is not a purificatory technique (*sodhana chikitsa*) alone; though *sodhana* (purification) forms a major part of panchakarma. The purificatory treatment in the form of panchakarma is quite unique to Ayurveda. According to Caraka samhita, one of the earliest writings on Ayurveda, if a disease is treated with *sodhana*, it does not recur. Thus panchakarma becomes an important part of Ayurvedic treatment modality.

There is a difference of opinion among classical authors on the techniques that come under panchakarma. Some include *vamana* (emesis), *virechana* (purgation), two types of *vastis* (enemas) and *nasya* (nasal medication). Here it is to be noted that even though there is a difference of opinion, most of the classical authors like Susruta and Vagbhata include *raktamoksha* (blood letting) in panchakarma apart from the other four techniques.

Panchakarma is commonly used in treating broad categories of conditions - arthritic, rheumatic, neurological, neuromuscular, musculo-skeletal disorders, other degenerative conditions, mental disorders, insomnia, depression, menstrual irregularities, infertility, obesity, asthma and other respiratory conditions, irritable bowel syndrome, gastro-intestinal conditions, other chronic conditions, etc. Thus panchakarma has preventive, curative and promotive functions.

In Ayurveda, there are three methods of treatment. They are *hetu vipareetha* (against cause), *vyadhi vipareetha* (against disease) or *ubhayarthakari* (both the above). Panchakarma includes all the three types of treatments.

### ***Historical Background***

It is interesting to note that a few elements of panchakarma were prevalent during the vedic period itself though the word panchakarma appears only in Ayurvedic literature. There are references to *virechana* and *vamana dravyas* (materials for emesis or purgation) in the vedic and post-vedic literature. Dhanvanthari, the lord of Ayurveda holds a *jalooka* (leech) in one hand symbolizing surgical procedure. It is understood that different forms of blood letting as a purifying method were prevalent even during ancient period. Similarly one can see references to *nasya* (nasal medication) in *pumsavana* (eugenics) in *vedic* literature. For example, to achieve conception by an infertile woman, *nasya* is done with root juice of white flowered *Brihati* (*Solanum anguivi*) collected on *Pushya nakshatra* (Tewari 1992:72). Even though some of these techniques have been described in *vedic* period itself, panchakarma as a comprehensive system of therapy took shape in *Caraka samhita* period.

Panchakarma is a unique contribution of Ayurveda. One can see extensive references to panchakarma in the earliest classical texts available on Ayurveda, *Caraka samhita*, *Susruta samhita* and *Vagbhata* otherwise known as *Brihathrayi*. As a living tradition, panchakarma is widely prevalent in the Ayurvedic practice of Kerala.

Not only in Ayurveda but in other different medical cultures as well, one could see treatments such as panchakarma used for purification purposes. Techniques like panchakarma are mentioned in the other systems of medicines as well. For instance, catharsis in the Greek medicine is a method of purgation or purification. Till recently, in Western Bio-medicine there was practice of medicated enemas for conditions like arthritis, asthma described in the form of high rectal or low rectal enema. Even recent pharmacological books had explanations on how these get absorbed into the body through lymphatic or systemic circulation and their effects. Drug administration methods like nasal medications for conditions like diabetes *insipidus* were also mentioned.

Even in other medical traditions Unani, Tibetan, Siddha, Chinese, Kampo in Japan or Jamu in Indonesia or the different African healing traditions, some of these techniques are used for purification purposes.

Techniques like emesis or purgation are techniques that support or activate body's natural processes. One can see techniques like induced

vomiting being used by animals as well. Cats or dogs when sick eat grass and induce vomiting.

Even in the local community specific oral traditions of India, one can find some of these treatments widely prevalent. For instance, a common treatment of mental disorders in these traditions is based on *vamana* (emesis). E.g. *Thiruvizha chardi*. This is a practice of emesis followed in a Siva temple of Southern Kerala for treating mental disorders. A paste made of specific herbs is given along with milk to the devotees suffering from mental diseases to induce vomiting. A milk pudding is also given which would facilitate emesis. Apart from inducing emesis, these medicines would also cause bouts of purgation, which would last for two to three hours. Following this a specific type of rice gruel is given to strengthen the body without any other diet restrictions. This practice is commonly done in artificial poisoning. There are number of such practices of emesis, purgation, bloodletting or enemas in these local health traditions.

If these methods are widely described in various traditions, one wonders what is exceptional about panchakarma in Ayurveda. Panchakarma has a systematic approach that includes pre-panchakarma techniques, a sequential approach of five methods and post panchakarma procedures in the form of a complete package. Persons who are suitable and not suitable for each of these techniques, how to do panchakarma, symptoms of effective medication, complications of panchakarma, treatment of these complications, benefits of doing each of these techniques, variations to be followed in the method based on the strength of the patient, seasons etc, different materials used, conditions in which each technique has to be administered are discussed in detail in Ayurvedic classical texts. In the context of vasti (medicated enema), it is mentioned "*Etat chikitsardham iti pratishtha...*" which means that vasti is considered half of treatment in Ayurveda. Thus, one could aver that panchakarma forms a major part of the treatment in Ayurveda.

### ***Theoretical Background***

According to Ayurveda, our physical body is made-up of 7 different types of tissues called *dhatu*. These body tissues are nourished through food materials that get digested by action of digestive fire (*agni*). The digested materials are carried to different tissues through *srotas* (body channels). At each tissue level, there is a digestive fire that works on the food material to activate absorption of nutrients into the corresponding tissue. As a by-product of this process, *mala* (waste materials) are formed which are eventually eliminated. Nourishment of body tissues does not happen when there is any block in body channels or impaired function of any of the digestive fires; this results in the indigestion of

food in the body. This undigested material or waste material (*ama*) clog the body channels and manifests in different disease conditions. Management of these conditions has to be done by removing of these clogs or blocks and improving metabolic processes. When oleation and sudation are done, waste materials, clogged in the body channels become *pakva* (digested and disintegrated), and they move into the *kostha* (*main channel*). During panchakarma, these are expelled through natural orifices. As it is a mechanism to eliminate the waste materials from the body, panchakarma is not only used as curative treatment but also as preventive and promotive.

*“Seetodbhavam dosacayam vasante visodhayan greesmajam abhrakale  
ghanatyaye varsikamaasu samyak prapnoti rogaan rtujaan na jaatuh  
(Astanga samgraha,  
Roganutpadaniya)*

*Astanga samgraha*, one of the classical texts, says that panchakarma has to be applied to remove the waste materials accumulated in the body in different seasons for prevention diseases caused by seasonal changes. It is mentioned that waste materials accumulated in the body during winter should be eliminated in spring, those accumulated in summer should be eliminated in rainy season and that accumulated in rainy season should be cleared in autumn. In Kerala, during the month of *karkataka* (*July-August*) oil treatments is very popular. This is to alleviate the *vata* accumulated in the body during summer and aggravated in rainy season.

There is a general thinking that panchakarma removes the toxic materials. But it has to be understood that Ayurveda does not mention these materials as *visha* (toxins) but they are considered *ama*. *Ama* refers to the material that is a drop out of the body's metabolic process i.e. the undigested materials. Panchakarma activates body's natural processes and eliminates *mala* (waste) from the body.

### ***What are the Different Techniques Involved?***

As mentioned earlier panchakarma includes a preparatory technique, five main techniques and a few post techniques. This is usually done in a sequence. But nowadays, due to time constraints, physicians select important and the most appropriate techniques only. Now let us look at the details of each of these techniques.

#### **Poorvakarma (preparatory techniques)**

After doing a detailed examination of the patient through the different diagnostic methods, a physician decides whether patient should undergo a *samana* (pacifying) or *sodhana* (purification) therapy. Before starting

panchakarma one has to undergo two types of preparatory treatments that are called *poorva karma* (preparatory techniques). This consists of *snehana* (Oleation) and *svedana* (sudation). Oleation helps in making the blocks (created by the metabolic waste materials in the body channels) slimy and non-cohesive. After making them unctuous, *svedana* (fomentation) is done to bring all these waste materials into the *kostha* i.e. the open spaces in the body and expelled through panchakarma.

### **Snehana (oleation)**

The word “*sneha*” in this context denotes unctuousness or oily nature. Thus the technique of *snehana* involves making the body oily or unctuous by giving materials that are oily in nature in high quantity either internally or externally. According to the classical texts, there are four types of sources for these unctuous materials.

“*Sarpirmajja vasataila sneheshu pravaram matam*”  
(*Ashtanga hridayam*)

*Sarpi* (ghee), *majja* (bone marrow), *vasa* (adipose/fat tissue), *taila* (oil) are four unctuous materials. These four are used for treating different conditions. E.g. Oil is used in conditions such as tumours, sinus ulcers, or diseases of *kapha* and *vata* and those who have hard bowels. Similarly fat is used for pain in joints or bones, vital organs etc. At times combination of two (*yamaka*), three (*trivrit*) or four (*mahan*) of the above are also used in treatment.

The method of administering high doses of unctuous material internally is known as *snehapana*. According to the dose in which this is administered, there are four categories. *Hrasiyasi matra* (smallest dose), *hrasva* (small), *madhyama* (medium), *uttama* (maximum) are these four. These categories are decided according to severity of the condition, its stage, age, digestive capacity of the patient etc. The *matra* (dose) is named small, medium or maximum based on the time taken for the medicine to digest when taken internally.

The time and method of administration are also very important. For instance, the method of administration could either be by applying outside, enemas, nasal drops, applying on the head, ears or eyes or taking internally. It is also used along with food based on the differential diagnosis. There are 64 recipes mentioned based on the different permutations and combinations of adjuvants. But usually before purification therapy *sneha* (unctuous material) is given alone. For pacifying it is given when the patient is hungry. For *brimhana* (nourishment), it is given with other materials like meat soup etc.

Specifications are mentioned on how to prepare the medicine for different type of applications.

*“Tailam pravrisi varshante sarpiranyau to madhave  
mase sadharane sneha sastohni vimale ravou”*

(Astanga hrdayam)

Oil is used in rainy season, ghee in autumn; fat and bone marrow are used in spring; and usually *snehapana* has to be done on days when there is bright sun.

*Snehana* course is decided based on the severity of the condition as well as the nature of the patient. Maximum oleation is given for seven days. There are also details of the symptoms of the person who has undergone a good *snehana* or effects of an improper oleation and their management mentioned in the classical literature.

While taking *snehana* the patient has to follow strict *pathya* (dietary and activity restrictions), which is also prescribed for every treatment in panchakarma.

### **Sneha Yogya (suitable)**

Usually oleation is done for people who are to undergo sudation (*svedana*) and purification (*sodhana*), those who indulge in alcohol, excessive sexual intercourse, physical strain such as exercise, those who think too much, the aged, children, the emaciated, those who have dryness (*rookshata*), people with depleted blood and reproductive tissue, who are suffering from *vata* types of disorders, having specific eye diseases (*syanda*, *timira*) and those who have difficulty in waking up early.

### **Ayogya (unsuitable)**

Oleation should not be done for those who have a weak or strong digestive activity, who are obese, who are suffering from stiffness of thighs, diarrhoea, metabolic dysfunction (*ama*), diseases of throat, affected by some kinds of poisons like *gara* (artificial poison), enlargement of abdomen due to fluid accumulation, who are in the state of unconsciousness, who are suffering from vomiting, anorexia, increased *kapha*, thirst, alcoholic intoxication, who have had abnormal delivery and who are on nasal medication, enema and purgation.

Guggulutiktakam, mahatiktakam, indukantam, panchagavyam, mahat panchagavyam, kalyanakam, Dadimadi ghritam, tiktakam, brahmi ghritam are some of the commonly used ghee preparations also available in the market. Tuvaraka (*Hydnocarpus laurifolia*), sarshapa (*Brassica*

*juncea*), *arista* (*Azadirachta indica*), *nikumbha* (*Baliospermum montanum*), *aksha*  
*Panchkarma*

(*Terminalia bellerica*) and *karanja* (*Pongamia glabra*) oil are a few types of oil mentioned in the literature.

*Sneha pana* is effective in conditions like *amlapitta* (acid gastritis), *tamaka svasa* (bronchial asthma), *antravridhi* (hernia), *kushtam & visarpa* (skin diseases), *vatarakta* (arthritic conditions) and *vatam* (rheumatic conditions).

### **b. Svedana (sudation)**

Through *svedana* the waste materials blocked in the body are brought into the main body channel (*mahakoshtha*) before it is expelled through the main techniques of *panchakarma*. According to *Astanga hridaya*, one of the major classical texts (600 AD), there are four different methods by which one can administer sudation. They are *taapa* (fomentation by applying heat), *upanaaha* (warm poultice of different medicinal materials) *usma* (steam) and *drava* (pouring warm liquid). According to *Caraka samhita*, there are 2 types of *sveda* called *agnisveda* (with fire) and *anagni sveda* (without fire). *Agni sveda* is divided into 13 types where as *anagni* into 10 types.

These different techniques are used according to the condition and strength of the patient. Many of these techniques are not used in present day practice. Contemporary practices involve mainly steam method, pouring of hot liquid to the body or massages. Sudation can also be mild, moderate and maximum according to the disease, patient, habitat and season. It is also prescribed that sudation should be mild in groins and it should not be done in eyes, scrotum and in the area of heart. It is also to be noted that detailed prescriptions are given in case of complications of sudation.

### **Yogya (suitable)**

Persons having breathing disorders, cough, running nose, hiccup, constipation, hoarseness of voice, diseases of *vata*, *kapha*, metabolic dysfunction (*ama*), stiffness, feeling of heaviness, aches, sprains, catch in different parts of the body, enlargement of scrotum, sprains, dysuria, tumours, reproductive conditions etc.

### **Ayogya (unsuitable)**

Persons who are very obese, dry, weak, unconscious, weak due to chest injury, emaciation, who have disease related to excessive alcohol intake, specific eye disorders, enlargement of abdomen due to fluid collection,

specific skin diseases, consumption, those who have gout, those who have had some types of food like milk, curds etc, who have undergone purgation, those who are suffering from prolapse or burns of rectum, exhaustion, anger, grief, fear, excess hunger and thirst, jaundice, anaemia, various types of diabetes, and diseases of *pitta* origin, women who are menstruating or pregnant or delivered recently. In case of emergency in these conditions, it can be done mildly. Apart from being the preparatory techniques for panchakarma these two methods (*sneha*, *sveda*) are often used as part of *samana* treatment as well. Present day Ayurvedic massages or steam baths without purification techniques can be grouped under this category.

### ***Pradhana Karma (major techniques)***

*Pradhana karma* consists of the five techniques mentioned earlier. Each of these techniques is meant to purify a particular *dosa* (*vata pitta, kapha*) in the body.

a. *Vamana* (emesis): Emesis is usually given for *kapha* type of disorders. Today it is not very commonly practiced. After *sneha*, *sveda*, if the patient has had a good digestion and a pleasant sleep, the patient is made to consume specific types of gruel, milk, fish, curds etc. Next morning the patient is given a paste of emetic drugs followed by intake of an emetic decoction. It is mentioned that it should be done on an auspicious day after chanting certain mantras. After a *muhurta* (around 48 minutes), the person starts getting bouts of vomiting. If the bouts are insufficient, it should be induced by consuming lukewarm emetic decoction. The spells of vomiting and the quantity differ according to the dose of medicine consumed. Generally four, six, eight spells are considered good in minimum, medium and maximum types of emesis.

After *vamana*, certain inhalation is given with medicated smoke. Complete rest is taken on that day, and in the evening the patient is given thin gruel.

What are the restrictions in the diet and routine, management of complications, effects of good vomiting, what drugs to be used in each stage are few other topics detailed in the classical texts.

*Vamana* is good for all *kapha* disorders. It helps in improving sleep and reducing excessive sleep; it is useful in treating mental disorders, asthma, epilepsy, skin diseases (*visarpa, kushtha*), anaemic conditions, migraine, *kapha* type of heart conditions, tumours of the neck, poisoning, infertility and minor conditions like pimples etc.

### **Yogya (suitable)**



Emesis is given in fever which is new, diarrhoea, bleeding through orifices of lower part of the body, tuberculosis type conditions, leprotic conditions and skin disorders, diabetes, goitre, tumours, filariasis, mental disorders of *kapha* type, cough, dyspnoea, nausea, disorders of breast milk and diseases of upper part of the body, where there is predominance of *kapha*.

### **Ayogya (unsuitable)**

Pregnant women, persons with dryness of the body and hunger, the exhausted, children, the aged, the emaciated, the obese, patients with heart disease, wounds, vomiting condition, enlarged spleen, blindness due to cataract, worm infestation, upward movement of *vata* or haemorrhoids. It is also avoided for those who have been given enema, who have loss of speech, dysuria, enlargement of abdomen with fluid accumulation, tumour in abdomen, who respond poorly to emesis or have strong digestion, giddiness, enlargement of the prostate, pain in flanks, diseases caused by *vata* except for those who are suffering from poisonous affections, indigestion or have taken incompatible food.

### **Virechana (purgation)**

Purgation is mainly done for *pitta* type of conditions. It also takes care of the *kapha*, which is located in the place of *pitta*. In the panchakarma procedure, *virechana* is done after *vamana*. In this case again *snehana* and *sveda* have to be done. *Virechana* medication is given in the morning. The materials, dosage etc are decided based on the condition, strength, digestive capacity and bowel habits of the patient, *dosa* involvement and season. Small quantity of warm water can be consumed till one gets complete evacuation. It could also prevent dehydration. According to the classical texts, ten, twenty and thirty evacuations are considered the best for *mridu* (mild), *madhyama* (medium) and *uthama* (maximum) types of purgation respectively. If the *virechana* is done after *snehana* and *svedana*, it does not lead to complications such as dehydration.

### **Yogya (suitable)**

Persons with tumours of abdomen, piles, boils on the body, discolouration of face, jaundice including advanced stages, chronic fevers, enlargement of abdomen due to fluid collection, artificial poisoning (*gara*), vomiting, spleen disorders, abscesses, blindness (*timira*), cataract (*kaca*), pain in large intestine, genito-urinary conditions, worm infestation, wounds or ulcers, gout, bleeding through orifices of upper part of the body, disease of blood, suppression of urine, obstruction of faeces, those who are suitable for emesis like skin diseases and diabetes.

**Ayogya (unsuitable)**

Persons suffering from recent fever, less digestive power, bleeding through orifices in the lower part of the body, injury of the rectum, diarrhoea, with foreign body, who are given enema, those who have hard bowel movement, those who suffer from excess oleation and consumption.

**General Qualities of Vamana and Virechana**

*“Budhiprasadam balam indriyanam dhatusthiratvam jvalanasya deeptim chirat ca pakam vayasah karoti samsodhanam samyagupasyamanam”*

-Astangahrdaya

Clarity of intellect, strength of senses, stability of body tissues, increased digestive capacity, regulated aging are the effects of purification therapy (if done properly).

**Vasti (medicated enema)**

Medicated enema is highly effective *vata* type of disorders. It is also applied in other *dosa* disorders as well. *Vasti* is considered as half of the treatment in Ayurveda. There are two types of medicated enema. They are done with decoction (*kashaya*) and unctuous materials (*sneha*) like oil, ghee etc. *Kashaya vasti* is known as *asthapana*, which means ‘that which stabilizes’. *Sneha vasti* is otherwise known as *anuvāsana*, which means ‘that which stays along’. Thus *anuvāsana* is considered as a subsidiary to *kashaya vasti*. A third type of *vasti* is *uthara vasti* to treat genito-urinary conditions. *Vasti* is administered with a specially prepared *yantra* (instrument). Specifications of the instrument are detailed in the texts. Generally *kashaya vasti* is done before food and *sneha vasti* after food.

Usually *kashaya vasti* is done after *virechana*. Initially a few *sneha vastis* are done to make the *pakvasaya* (large intestine) unctuous. *Kashaya vasti* is done in the morning after doing oil application and sudation. The patient has to lie on the left side of the body. According to *dosa*, disease, strength of the patient and age, *kashaya vasti* is prepared. Decoction, paste and oil are added and churned for some time for making a good mixture. Then it is made mild warm. If this is applied cold or very hot it will lead to complications. It takes 10-15 minutes to pass bowels after *kashaya vasti*. Few seconds after *vasti*, patient has to lie down on the back. If *vasti* stays for more than 48 minutes it would lead to complications. Diet and routine restrictions have to be followed. Immediately after the noon food, *sneha vasti* has to be done. *Vasti* getting blocked, distension of abdomen, headache, tenesmus, heaviness, upward movement of *vasti* are a few complications when there is hypo action. When *vasti* is given in excess, it will result in body pain, stomach pain, hiccups, pain in the naval, heart disease and bleeding from rectum.

There are three types of *vasti* courses. They are *yoga*, *kala* and *karma*. *Yoga vasti* includes eight *vastis* - 4 of *kashaya* and 4 of *sneha* in an *alternate order*. Similarly *kala* consists of 15 *vastis* and *karma* 30.

There are different types of *vastis* based on the dose, materials used or action. They are *dvadasaprasrithika*, *madhutailika*, *rajayapana*, *yapana*, *lekhana vasti*, *brimhana vasti*, *pichavasti*, *ksheera vasti*, *siddha vasti* etc.

*Uthara vasti* is another major technique, which is applied through penis, vagina, or urinary tract. This is effective in reproductive problems, urinary disorders including calculi, uterine disorders like bleeding, endometriosis, fibroid, vaginal disorders, infertility, and delicate pregnancy (with chances of miscarriage).

### **Anuvasana vasti (unctuous enema)**

Anuvasana is either given independently or along with *kashaya vasti*. Thus this has both rejuvenative or nourishing and purificatory effect on the body. As the quantity is relatively less this is given with syringe. A particular quantity of oil or ghee is administered through anal orifice. After giving *sneha vasti*, the patient is asked to lie on the back and the buttocks are tapped with the legs of the patient or with physician's hands. The legs are lifted up and down two to three times. This is to retain the material inside. After few minutes the patient can move around. Normal motion along with oil would occur after few minutes. It will lead to complication if it stays for more than three *yamas*. *Anuvasana* makes the naval region unctuous; it facilitates downward movement of *vayu*, strengthens the body, and nourishes body tissues. *Matra vasti* is given in smaller dose. For this purpose generally other purificatory techniques are not done.

### **Yogya (suitable)**

All suitable for decoction enema, those having strong digestive power, which are dry, suffering from *vata* conditions not associated with other *dosas*.

### **Ayogya (unsuitable)**

Persons not suitable for decoction enema are those suffering from anaemia, jaundice, diabetes, rhinitis, lack of food, diseases of spleen, diarrhoea, hard bowels, enlargement of abdomen caused by *kapha*, eye diseases like ophthalmia, obese, worm infestation, gout goitre, filariasis, and scrofula, who have taken artificial poison (*gara*).

### **Kashaya vasti (decoction enema)**

Specially prepared decoctions are used for this purpose. The quantity given is one litre or more. Specially prepared instrument is used for administration of *vasti*. The main purpose of *kashaya vasti* is purification. It is also given as nourishing or for preventive purposes. The dosage, formulation etc. are decided based on the purposes for which it is given.

### **Yogya (suitable)**

Persons with abdominal tumour, distension of abdomen, gout, diseases of spleen, diarrhoea (not associated with any other conditions), pain in the abdomen, chronic fever, running nose, obstruction of semen, flatus and faeces, enlargement of scrotum, urinary stone, amenorrhoea, *vata* diseases are suitable for decoction enemas.

### **Ayogya (unsuitable)**

The persons who have taken excessive oleation, those suffering from injury to the chest, emaciation, diarrhoea due to *ama*, vomiting, who have undergone purificatory therapies, who have been administered nasal medication, who are suffering from breathing disorders, cough, excessive salivation, piles, flatulence, weak digestion, swelling of the rectum, who have just taken food, who are suffering from enlargement of abdomen due to intestinal obstruction or perforation or fluid accumulation, skin conditions like leprosy, diabetes and pregnant women in the seventh month should not be given decoction enema.

### **Nasya (nasal medication)**

*Nasya* is applied in *kapha* disorders. This is very effective in disorders above shoulders. It is applied in unconsciousness, headache, hemiplegia, other neurological disorders etc. There are two types of *nasya*. They are *marsa* and *pratimarsa*. *Marsa* is major type of *nasya*, which is again divided into *uttama* (maximum), *madhyama* (medium) and *adhama* (minimum) types. *Pratimarsa* is done in a small dose as a daily routine for healthy people, elderly and children. *Nasya* can be done either by oil/ghee, juice, decoction, paste or powder. *Nasya* is given in the morning for *kapha* disorders, during the noon for *pitta* disorders and in the evening for *vata* disorders.

Before doing *nasya* the face is applied with oil and fomentation is given. Then *nasya* material is applied to both nostrils in the prescribed quantity. Breath is taken through the nostrils itself by keeping the mouth open. If it is powder, then mild blowing of the material into the nostrils is done. Then shoulder, forehead, nape of the neck, both palms are massaged gently. The material that comes out is spitted out. Later medicated smoke is inhaled. After that rest should be taken. Restrictions for diet and routine are same as that of *snehana*.

There are three types of *nasya* based on its action. They are *sodhana/virechana* (eliminative), *samana* (pacifying), *brimhana* (nourishing). *Virechana* type is done for headache, heaviness of head, eye disease, disease of throat, oedema, tumours of the neck, worm infestation, tumours in the body, leprosy, epilepsy and rhinitis. *Samana* type is done for *vata* type of headache, migraine, loss of voice, dryness of mouth and nose, speech problems, pain and movement problems in arms. *Samana* is done for discoloration on the face, diseases of hair and eyes.

### **Ayogya (unsuitable)**

Who have just consumed water, alcohol, artificial poison, oleation, or those who wish to consume them, who have taken bath, who have had blood letting, acute rhinitis, having natural urges of the body (like defecation, urination, sneezing etc.), immediately after delivery, dyspnoea, cough, those who have undergone purificatory therapies, who have been given enema, unsuitable seasons, on sunless days except in emergency during diseases. *Nasya* is not done for children who are less than seven years or to the old above 80 years.

By doing *nasya* the shoulders, skin, neck and chest become strong and bright, senses become stable, and grey hairs disappear.

### **Raktamoksha (blood letting)**

Apart from this *raktamoksha* (blood letting) is also considered as one of the techniques in purification. Blood becomes impure due to activities and food that aggravate *pitta* and *kapha*. For removing the impure blood, these techniques are used. There are four different types of methods used - *Siravedha* (cutting the blood vessel), *prachana* (pricking), *jalooka* (application of leech), *sringa*, *alabu*, *ghatika* (application of horn etc.). *Siravedha* takes care of blood all over the body, *prachana* is good for a specific location, blood that is hardened in one place and deeply rooted should be removed with *jalooka* (leech) and where there is lack of sense of touch, there horn also should be applied.

In *siravedha* a particular blood vessel is cut with instrument called *kuthari*. *Snehana*, *sveda* are done prior to that. It is done in the noon (*pitta kala*), A tight bandage is given near the place where blood letting is to be done. The blood vessel is tapped and when it comes up it is massaged. Then the vessel is cut till sufficient quantity of blood is taken out. It is done for mental disorders, epilepsy, headache, tumours of neck, sciatica, arthritis etc.

**Prachana** After tying a tourniquet, multiple pricks are made in the skin with a sharp instrument. Blood oozes out of the body and when

sufficient amount of blood is passed out the tourniquet is removed and the area is washed with a medicated decoction.

*Prachana* is mainly used in skin diseases.

*Jalooka*: A small prick is made and leech is applied to the affected area of the body. It is mentioned in the literature that leeches take the bad blood from the body and leaves. If leech remains on the body it is removed by applying lime or tobacco to the mouth of it. Leech should be made to vomit and till the blood comes out of the body of it.

*Jalooka* is used for persons who are weak, young, old and those who cannot tolerate other methods of bloodletting. As leeches have cooling nature these are used in *pitta* type of disorders. They are commonly used in abdominal swellings, piles, inflammatory abscess, skin diseases, arthritic conditions, eye diseases, poisonous bites, erysipelas etc. There are 12 species of leeches used in Ayurveda and are classified into poisonous and non-poisonous types. Six out of twelve are poisonous and the others are non-poisonous. If poisonous leeches are used for blood letting then complications like itching, inflammation, fever and unconsciousness happen.

*The poisonous leeches grow in dead matter, urine, faecal matter of poisonous fishes, frogs, insects, in putrid water etc. The non-poisonous ones originate from the dead matter of lotus, lily, white lily, fragrant white lotus, moss, etc. The non-poisonous leeches are best if collected from yavana (Greece/north west India/Junagad), pandya (Tirunelveli, Madurai districts of Tamilnadu), sahya (northern parts of western ghats) and poutana (Paithan on the north bank of Godavari) regions. These have good strength and are fast acting.*

*Length of the body ranges from minute to 20 cm long and has 34 segments. The digestive system contains a pouch in which food can be stored for several months. They have two suckers - One on the anterior and the other on the posterior end. The leech's saliva contains a substance that anaesthetises the wound area, dilates the blood vessels to increase blood flow and prevent the blood from clotting. The anticoagulant Hirudin is used for medicinal purposes.*

### **Srngga, Alabu, and Ghatika**

This is a method of extraction of blood through cupping. Materials like horn (srngga), fruit of a plant (alabu - *Cucumis lagenarius*), or a special type of pot (ghatika) are used. An incision is made on the part where bloodletting is to be done and over that cupping is done by creating a vacuum by burning some material inside the instrument.

### **Yogya (suitable)**

Those who are below 16 years old or above seventy, have had bleeding, those who have not undergone *sneha* and *sveda*, excessive *sveda* affected persons, patients suffering from vata condition, women who are pregnant or just delivered, those who have indigestion or diarrhoea, bleeding disorders, breathing disorders, ascitis, vomiting, anasarca or immediately after *vamana* etc.

Some scholars do not include *raktamoska* in panchakarma. A reason mentioned is that panchakarma is a technique that helps the body to eliminate the materials through its natural orifices in the form of faecal matter, sweat, breath, phlegm, urine etc. Whereas there is no natural way in which blood can come out of the body, bloodletting is not included in this.

Apart from this, there are socio-cultural factors that have also influenced this. Bloodletting or other surgical interventions were considered a taboo and unclean during some period in the history when the concept of *ahimsa* was prevalent. Another reason was that the *rakta* was not included a *dosa*. Even then *raktamoksha* was appreciated by many classical authors describing it as one of the best techniques for *rakta vikara* (blood disorders).

### **Paschat karma (post-panchakarma regimen)**

As mentioned earlier, post panchakarma regimen is very important for getting the maximum benefits. After purification, giving suitable materials like rasayanas nourishes the body. This is essential to build up the exhausted body tissues and establishment of normal metabolic and immune functions. If this process is not done properly, the new ama (metabolic wastes) is generated which affects the immune function of the body. One of the important factors of the paschaat karma is diet others being sleep and sex. These are also told as *thrishmbha* (tripod of health).

### **Aahaara or Peyadi Krama (dietary prescriptions)**

In panchakarma, *peyadikrama* has a major role to play. *Peyadikrama* is a method to increase the strength of the digestive fire by giving lighter diet to start with and gradually bringing the patient to his or her normal diet. The preparations are *peya* (red rice gruel), *vilepi* (gruel with more quantity of rice), *akritha yusa* (rice gruel prepared with pulses like green gram), *kritha yusa* (rice along with greengram soup and spicy foods & condiments), *akritha rasa* (meat soup with rice), *kritha rasa* (rice with meat) and so on. It is mentioned in *Astangahrdaya* that:

*“Yathanuragni trinagomayadyai sandhukshyamano bhavati kramena mahan sthirah sarva pachasthathaiva suddhasya peyadibhirantharagni*

Like an ember that slowly lights and forms into flames when grass or cow dung is put, the digestive fire in the body increases, becomes stable and powerful by doing *peyadikrama*.

### **Vihaara (life style prescriptions)**

A regulated life style also plays an important role in getting the maximum benefits of panchakarma. It has to be followed for equal number of days for which panchakarma was done. For a period of time one has to observe strict regimen (*kathina pathya*) and later slowly taper into normal lifestyle.

Apart from pre, main and post techniques, in the classical texts few other techniques that are subsidiary to panchakarma are also mentioned. They are *dhumapana* (medicated smoking), *gandusa* (holding medicated material in the mouth), *kavala* (gargling), *pratisarana* (applying a coat of the drug paste to mouth), *mukhalepa* (application on face), *murdha taila* (applying oil on the head), *karna poorana* (applying medicine in ears), *ascyotana* (eye drops), *anjana* (collyrium), *tarpana* & *putapaka* (eye medications).

### **Local Additions to Panchakarma - Kerala Specials**

Apart from these five techniques, there are few supportive treatments that have been developed and practiced in Kerala. Why there are so many special treatments in Kerala is not clearly known. It is ascertained that Ayurveda got popularity in Kerala during the period of Vagbhata. It is interesting to note that these techniques have been mentioned very comprehensively in *Ashtanga samgraha* and *Ashtanga hridaya*. Later, *ashtavaidya* traditions (a group of renowned families) have done a great deal in popularising these treatment methods. Apart from that, there have been vaidyas with great interest in these methods, which have popularised them. Sri.Manakkodan Kesavan Vaidyar who wrote an elaborate treatise on practical experiences of panchakarma in "*Panchakarmam athava sodhana chikitsa*" (1949), Panavalli Krishnan vaidyar who wrote a book elaborating on various aspects of medicated enemas called "*vasti pradeepam*" are a few among them. The renaissance of Ayurveda that happened during the late nineteenth century in places like Kottakkal, Shornur have also contributed in popularisation of these practices.

### **Techniques Specially used in Kerala**

#### **Uzhichil /Abhyanga (oil application)**

*Abhyanga* means oil application and massage. This is one of the techniques for *bahya snehana* (outside oleation). This is good for regulating age, exhaustion and increase of vata. It is good for vision, nourishment of the body, longevity of life, sound sleep, and healthy skin.



It is also mentioned that oil application should be specifically done on head, ears and feet. Persons suffering from kapha disorders, those who have just had eliminatory treatments or those who are suffering from indigestion should not do it.

In Kerala, application of the oil on head and body is a common practice. There are many medicated oils available in the market for body and head application. People who have good grasp of vital points in the body and anatomy do massage in a systematic way. According to the *dosa* predominance the oil is selected. It also differs based on the affected part. *Dhanvantharam thaila, sahacharadi thaila, pinda thaila, karpasasthyadi thaila, narayana thaila, masathaila, balasvagandhadi thaila, lakshadi thaila, kottam chukkadi thaila* are a few oil preparations commonly used for the body. *Bringamalaka thaila, asanaviladi, manjisthadi, kayyunnyadi, rasnadi, eladi, vilvadi, malathyadi, himasagara, chandanadi, thriphaladi* are a few types of oil used for the head.

It is to be noted that these techniques have not developed solely as part of the Ayurvedic tradition. For example techniques like *abhyanga* (oil massage) are part of the *kalari* (martial art), *kathakali* (a dance form of Kerala). These massages are either done with hands or legs (*chavitti uzhichil*)

### **Navarakizhi**

*Navarakizhi* is known as *Salishashtikapinda sveda*. This is one of the methods of fomentation of the body parts. A special kind of rice called *navara* is cooked along with decoction (usually made of *Sida retusa*) and milk and rice cakes are made. These cakes are tied in cloth and *kizhi/potali* (bags) are made. Oil is applied on the body before starting the treatment. The bags are dipped into the mixture of milk and decoction and made warm and massaged on the body. This is done for 30-45 minutes. Later body is wiped with a clean cloth and oil is applied again. Warm water bath is taken later. This can be done on part of the body or the whole body. *Navara theppu* is another method of application of the *navara* rice paste on the whole body.

These are effective, mostly for *vata* type of disorders where there is depletion of *kapha*. It is done especially for *mamsa sosa* (depletion of muscle tissue). It is also used for different types of neurological disorders, disused atrophy, degenerative conditions of the joints, burning in the body, body weakness, sciatica and convalescence in different diseases.

### **Ilakkizhi**

Like in Navarakizhi, here application is done by leaves, which is called *ilakizhi* and the application done with powder is called *choornakizhi*. These two are done in *kapha* types of conditions associated with swelling, heaviness etc. Different leaves are fried along with coconut peels and lemon, salt and then tied into a *kizhi* (cloth bag). Similarly for *choorna kizhi*, powder is made and put in the bag. These are effective in pain due to swelling, spondylosis, sciatic pains, arthritic complaints, stiffness, pain, and swelling of joints. Before applying *kizhi*, oil application is done. Duration of this procedure is around 45 minutes.

### **Pizhichil**

This is yet another method of *sneha and sveda*, which is very popularly used in Kerala. This is also known as *kayaseka*. Oil is applied to the head and body and gently massaged. Following this, four persons sitting on either side of the patient squeeze warm oil from a cloth on the whole body continuously. The oil coming out of the treatment table is continuously heated and again squeezed on to the body. This is done in different positions. The procedure takes around one hour to complete. It can also be done by gradually increasing time on subsequent days. After this warm bath is taken. Generally it is done for 7, 14 or 21 days. This is also commonly used in all *vata* type of conditions including hemiplegia, paraplegia, pain, stiffness and arthritic conditions. The heat has to be clearly monitored as increase in heat can lead to complications. There is a documentary evidence of instances where *pizhichil* was done for one day continuously for severe *vata* disorders like *apathanaka* or *apathankthraka* (tetani types of disorders).

### **Dhara**

The word *dhara* means continuous pouring of a liquid substance. Generally medicated oils, decoctions or *dhanyamla* (fermented preparation from different grains), *thakra dhara* (medicated buttermilk), *ksheera dhara* (milk) and *sthanya dhara* (breast milk) are used for this purpose. This can be done either on a part of the body or to the whole body known as *ekanga dhara* and *sarvanga dhara* respectively.

### **Dhanyamla Dhara**

This is one of the types of *drava sveda* (fomentation by liquid). This is a slightly fermented preparation made of different grains and pulses. Rice, horse gram, parched rice, puffed rice, lemon are a few of the materials used. The liquid made is heated everyday. *Dhara* is done by this liquid on the whole body of the patient in cases of hemiplegia or different types of paralysis, arthritis, obesity and oedema. The patient is also made to sit in a vessel filled with this liquid. This is called *avagaha*, which is used in piles, lumbar pains, sciatica etc.

### **Thakra Dhara**

Buttermilk is medicated with *musta* (*Cyprus rotundus*), *usira* (*Vetiveria zizanioides*), *amalaka* (*Emblica officinalis*) and similar types of other drugs and poured on the forehead continuously. This is done for nearly one hour and is especially prescribed in skin diseases, diabetic types, eye diseases, ojakshaya (depletion of the essence of body tissue), headaches, mutradosa (urinary disorders), heart diseases, indigestion, ear disorders and other *kapha* and *kapha-pitta* type of disorders. Similarly *ksheera dhara* (medicated milk), *sthanya dhara* (breast milk) are few techniques used for *pitta* conditions.

### **Thalam**

*Thalam* is a unique treatment, mainly done with *amalaka* (*Emblica officinalis*), sandalwood and other *pitta* reducing drugs. A paste is prepared with the medicines, and it is applied in the centre of the head for prescribed time. This is beneficial in different types of mental disorders, sleeplessness, headaches etc. Similarly butter (*vennathalam*) is also applied. Formulations like *rasnadi choorna*, *kachoradi choorna* are also mixed with specific oils in different conditions. It is advised that the water content in this should be optimum otherwise would lead to complications.

### **Sirovasti, Siro Dhara, Moordhathaila, Pichu**

Apart from the above, there are four different applications on the head. *Sirovasti* is an effective procedure for neurological complaints like palsies, migraine, earache, eye diseases, deafness etc. A cap made of animal skin or resin is tied onto the head. The cap is held 2 inches above the head, and moderately warm oil is poured in a thin stream for around one hour. The head has to be shaved before starting the treatment. This is also done for other parts of the body known as *urovasti* (chest) or *pristha vasthi* (back). *Sirodhara* (continuous pouring), *moordha thaila* (head application of oil) have been explained earlier. *Pichu* is a method wherein a cloth dipped in oil is put on the head for a period of time. This can be done on other parts of the body as well. Prescriptions for how to prepare medicines for each of these procedures are detailed in the literature.

### **Palpuka**

Oil is applied to the body and medicated milk is boiled and the body is exposed to the vapour coming out of the milk. This is generally used for *vata* conditions affecting the upper part of the body. Eye should be protected from vapour by covering it.

### **Thalapothishil**

This is known as *sirolepa* in Sanskrit. After the head is tonsured, the medicine in the form of paste is applied to the head. This is used in neurological disorders, mental disorders, hair conditions and headaches.

### **Instruments Used**

Most of these treatments are done on a specially prepared table called *pathi*. There are few species of plants mentioned from which this table can be made. The reason is to get maximum efficacy. Some of those species according to *Sahasrayoga*, a regional literature from Kerala are Plaksha (*Ficus lacor*), Udumbara (*Ficus racemosa*), Gandhasara (*Santalum album*), Varana (*Crataeva magna*), Nyagrodha (*Ficus benghalensis*), Devadruma (*Cedrus deodara*), Punnaga (*Calophyllum inophyllum*), Kapitha (*Limonia acidissima*), Chocha (*Cinnamomum cassia*), Bakula (*Mimusops elengi*), Asoka (*Saraca asoca*), Asana (*Pterocarpus marsupium*), Amra (*Mangifera indica*), Champaka (*Michelia champaca*), Vilva (*Aegle marmelos*), Nimba (*Azadirachta indica*), Khadira (*Acacia catechu*), Amogha (*St ereospermum colais*), Agnimantha (*Premna serratifolia*), Arjuna (*Terminalia arjuna*). There are specifications for the length, breath and shape of the table. Nowadays the tables are made of fibre, tin or other materials.

Another instrument that is made with care is the *vasti yantra* (enema instrument). Today people use enema cans or syringes for doing *sneha vasti*. As per the classical prescriptions *vasti yantra* has to be prepared with bell metal. The length and the diameter of the orifices are decided based on the age group for whom it is used. It is prepared with different metals, horns, bones or the heartwood of trees like khadira (*Acacia catechu*). The bag in which the medicine is filled is prepared with bladder of goat, bull, buffalo, deer etc. Nowadays, plastic bags are also used. Similarly, specifications for dhara yantra, instruments for raktamoksha like scalpels, alabu, ghatika, and srnga have also been given in the classical literature.

### **Conclusion**

It is clear from the above-mentioned facts that panchakarma is a comprehensive method of therapeutics that has a lot to offer to our well-being. Commercialisation has not spared even systems of treatments like panchakarma. Panchakarma techniques have been distorted, diluted, and wrong claims have been attributed to it regarding its efficacy. Elements of panchakarma are being promoted in the name of health tourism where packages of treatment are demanded by the 'tourist' patient. As most of these panchakarma techniques involve specialised skills, an experienced physician's role is very important. It needs a mention at this point that many of these practices, promoted today in the name of 'health tourism', lack physician's role. Another disheartening

fact is that in recent times one can see substandard clinics coming up in private sector. There is absolutely no mechanism to monitor the standards of these clinics. Yet another fact is the mushrooming of panchakarma centres outside India. There should be a body in India similar to the various international bodies in western biomedicine, which would strictly monitor these practices and license their standard.

There is very little research done to bring out the real potential of panchakarma. It is understood through anecdotes of Ayurvedic physicians that panchakarma can fill a big gap in the area of degenerative disorders. But lack of rigorous research is a hurdle in this area. Of course there are panchakarma research centres managed by Central Council for Research in Ayurveda and Siddha (CCRAS). But they should take up these issues on a bigger scale and reach it out to the public through right channels.

Dilution of panchakarma methods is a serious concern. For instance, navara kizhi is usually done by a specific type of rice called Shashtika Sali. But due to non-availability and high price of this rice today people use normal rice. Similarly there are clear prescriptions on what materials should be used for making *pathi* (treatment table). But different materials like fibre or metals are being used today. Each of these modifications has to be studied through comparative research to understand the efficacy and safety of these practices. Panchakarma has vast unexplored potential, which if tapped properly not only will bring good health to people but will also fetch huge revenue for the nation.

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## HEALTH SYSTEMS Green Pharmacy

*Darshan Shankar*

Indian people had an incredible knowledge of phyto-medicine driven apparently by a tremendous passion for the study of medicinal plants. This is evident both in the living folk traditions in the rural communities as well as the scholarly systems i.e. Ayurveda, Siddha, Unani and Tibetan. Indians obviously care for medicinal plants because they know so much about them and have done so much work has so extensive, detailed and deep an understanding about the medicinal value of plants.

### ***History of Medicinal Plants Use***

The traditional definition of medicinal plants is given in Astaanga Hrdaya (600 AD) sutra sthana Ch.9-verse 10 as:

*'Jagatyevam anoushadham  
Na kinchit vidyate dravyam vashaannarthayagayoh'*

*'there is nothing in this universe, which is non-medicinal which cannot be made use of for many purpose and by many modes'*

This definition rightly suggest that in principle medicinal value, although in practice a plant is referred to as medicinal when it is so used by some system of medicine. There is evidence since early Vedic period (Atharva veda) of plants being used for a wide range of medicinal purposes. They have in fact been used in a continuous unbroken tradition for over four millennia. Medicinal plant use, is still a living tradition. This is borne around a million traditional, village-based carriers of herbal medicine traditions in the form of traditional birth attendants, visha vaidyas, bonesetters, herbal healers and wandering monks. Apart from these specialised carriers, there are millions of women and elders who have traditional knowledge of herbal home-remedies and of food and nutrition. As per recent statistics published by the Health Ministry. Government of India, there are 6,00,000 licensed and registered traditional physicians in India today.

At the folk level, in every ecosystem from the trans-Himalayas to the coast, local communities have keenly studied the medicinal plants found in their locality. Every 100 km or so throughout the length and breadth

of the country. One can observe variation in ethnic names and use of local bio-diversity indicating the intimate and independent appraisal that local communities have made of their local resources. Striking illustrations of Eco-system knowledge can be seen in the case of medicinal plants known to the Thakur tribals of coastal Maharashtra and the multiple regional uses of the same species

There is a verse in “Caraka” that explains how local communities understood and explored nature’s gift of medicinal plants to every eco-system:

*“Yasmin deshe tu yo jaatah tasmin tajjoshadham hitam”*

Natures is so (benevolently) organized that it has provided every micro-environment, the natural resources (in the form of plants, animals and minerals) necessary for the health needs of the people living in that environment”. It was perhaps this confidence in local eco-system resources and nature’s benevolence that inspired local communities to discover the medical uses of local plant resources.

The Indian system of medicine today uses across the various systems i.e. folk and codified around 8,000 species of plants. The maximum numbers of medicinal plants are utilized by the folk traditions, followed by Ayurveda, Siddha, Unani, Homeopathy.

In terms of life forms, medicinal plants are equally distributed across habitats viz. trees, shrubs and herbs, Roughly. One third of the known medicinal plants are trees and an equal proportion of shrubs and the remaining one-third herbs, epiphytes, grasses and climbers, and a very small proportions of medicinal algae. The majority of medicinal plants are higher flowering plants.

Preliminary analysis of the distribution pattern shows that medicinal plants are distributed across diverse habitats and landscape elements. Around 70 percent of India’s medicinal plants are found in the tropical zone, mostly in the forest of the Western and Eastern Ghats, the Vindhyas, Chotta Nagpur plateau, Aravalis the Terai region in the foothills of the Himalayas and the North East. Less than 30 percent of these medicinal plants are confined to the temperate and colder zones, although species of great medicinal value occur in some of these habitats. A quick analysis of the available data shows that the proportion of medicinal plants recorded in the dry and moist deciduous tropical forest is higher as compared to those recorded in the tropical evergreen forests.



The knowledge of the Indian people about plants and plant products is not based on the application of western categories of knowledge and approaches to studying natural products, like chemistry and pharmacology. It is based on sophisticated, indigenous knowledge category called “Dravya Guna Shastra”

On the basis of such schemes of study, this approach has resulted in around 25,000 brilliantly designed plant drug formulations, in the codified tradition, in a variety of dosage forms, although the traditional processing technology is pre-industrial, the range of methods of processing plants and principles of drug design are sophisticated

In the folk system a guestimate suggest that over 50,000 herbal drug formulations have been developed by the 4600 odd ethnic communities of India across her diverse ecosystem for a very wide range of applications. The value of folk knowledge can be dramatically illustrated from a single example of *phyllanthus nirui*, which is used by village communities in southern India for treatment of jaundice. The application of this plant for treatment of viral hepatitis B has been validated and patented by an American Noble Prize winner. During the last 200 years, there are several examples of local folk knowledge contribution to global health care. It is well known for instance that quinine extracted from the cinchona bark was used traditionally by natives of Peru for cure of malaria fevers.

According to an all India Ethno-botanical survey conducted (1985-90) there are 6000 species of medicinal plants in India which can be used by traditional practitioners in tribal areas and other village communities. In the local tradition, the internal fleshy mucilaginous jelly of the aloe plant known locally as Korphad Kumari etc. is used externally on burns and wounds and orally for any gynecological disorder. In Karnataka, a decoction of the bark of the bark of the *astonia scholaris* a flowering branch is used in virtually every household at the onset of the monsoon to prevent malarial fevers. The neck of the turtle is sometimes used for the treatment of a pro-lapsed rectum or uterus, *adathoda vassica* or *Adusi vasa*, as it is locally known, is a common treatment for coughs and to stop bleeding in the case of pies or dysentery

*Boerhavia diffusa* (*punarva*) is commonly used in the treatment of oedema as it has diuretic properties it is also use to combat anaemia paticularly. The nomenclature of medicinal plants is itself very rich. One can illustrate this with the example of “Guduchi” i.e *Tinospora cordifolis*. It has 52 meaningful names. Such examples suggest the passion with which the Indian people have indulged in the study of medicinal plants.

The plant name Guduchi which comes from the Sanskrit root *gudu rakshane* (that which protects) has the following synonyms.

Amruthavalli, (a weak-stemmed plant which acts as an elixir), mandali (circular), kundali (stem gets entangled with twiners) naagakumari (stem has a twining nature like that of a young snake) tantrika (spreading nature of the plant, looks after the health of the body), madhuparni (honey-like leaves) chadmika (thick foilage which forms a canopy) catsaadani

(leaves eaten by calves), shyaama (smoky due), dhaara (young stems have slight longitudinal grooves) chakralakshana (wheel-like appearance of cross section) vishalya (no thorns or other irritant appendage, removes disease chinna, chinnruha, chinnad bhaca, chinnangi (these four names indicate the capacity of the cut bits of stem to withstand or endure severe adverse conditions and to produce buds to develop new plants) abdikaahvaya (reservoir of water) amrutha (person using the plant would live long and be healthy) soma (powerful action of the plant as an elixir), rasaayani, vayastha, jeevanti (three names indicate rejuvenating nature of the plant) jvaranaasini, jvaraari (two names indicate the specific use if the plant in fevers, bhishapriya, bhishakjita (favourite of the physicians or that which has won the favour of physicians), vara best among medicines), soumya (benevolent in action), chandrahassa (crescent moonlike smile) decanirmita (created by God), amruthasambhava originated from nectat, surakritha (created by God)

The depth of study of plants is clearly reflected in their manifold applications. It is not uncommon to see several hundred applications of a particular plant used in various formulations for different purposes. This can be illustrated by the example of a very common plant called amla (*Emblica officinalis*).

There are nearly 180 formulations of amla. These formulations are used in wide range of disorders e.g.: eye disorders like conjunctivitis, vision disorders, hyperacidity, rheumatic disorders, abdominal disorders, jaundice, hiccough, breathing disorder, fever, cough, ear disorders, good for hair growth and texture, skin disorders, intoxication due to alcohol and gynecological disorders.

It is thus the ancient medical knowledges that has, though marginalized tremendously, the holistic remedies that modern and allopathic system cannot cure.

## HEALTH SYSTEMS Traditional Bone Setting

*Darshan Shankar*

General features of bone injury were mentioned by Susrutha 3,000 years ago and are found in standard modern orthopedic texts today. Types of dislocations like fracture dislocation (above left) and anterior or posterior dislocation (above right), even management of open or compound fracture (above middle), and many other aspects of bone setting have been set down in great detail.

### ***The Art that Refuses to Die***

Fashions last about a year or so in today's world, often even less. We change the clothes we wear, the food we eat; we change our minds about the type of art and books we admire; we even change our moral attitudes. Yet there are some things that never die. In the area of health, the most advanced technological changes is sometimes just not good enough, sometimes it's not even better. Traditional bone setting in India is an art that, in the face of urbanisation, lack of publicity, lack of "modern" facilities has survived and in many cases flourished, however obscurely. Considering that it is a technique that has survived more than 3,000 years, it may be worth our while to give it the attention it deserves.

India's ethnic communities use thousands of medicinal plant species to treat primary and complex ailments ranging from the common cold to bone setting. In the specialty area of bone setting alone, hundreds of plant species are being used in the most practical yet fascinating ways. Traditional bonesetters in India are the largest specialist group practising traditional medicine; there is roughly one practitioner for every two to five villages in rural India. Their numbers are surpassed only by traditional birth attendants, or Dais.

Classical Ayurvedic texts like Sushruta Samhita and Charaka Samhita have given every aspect of bone setting; effects of trauma on different types of bones are outlined; types of dislocations and types of fractures are studied; principles of treatment of skeletal injuries are listed; 15 types of bandages and various types of suturing materials and different types of sutures are illustrated; there is much more.

The depth of study is remarkable and, thankfully for us, it has been recorded in great detail. Even special techniques are mentioned by Sushruta. He highlights the importance of Physiotherapy and gives us an interesting method of immobilizing injured limbs by using a fracture bed where five nails are fixed on the sides of the affected limb to ensure there is no inadvertent movement of the limb.

### ***Prominent Bone Setters Today In Kerala***

*The Thriveni Ayurvedic Nursing Home in Thiruvanthapuram is a six storeyed building with modern facilities like X ray equipment and clinical laboratory. Sri Chandrasekharan Nair, the founder of this hospital is an Ayurvedic graduate from Thiruvananthapuram Ayurveda College, who has specialised in Marma Chikitsa (or vital points on the human body).*

In this centre, bamboo splints of various sizes and shapes wrapped in white cotton cloth are used for immobilising various bone injuries. The treatment of fracture consists typically of the following steps: The fracture is reduced and an initial bandaging is performed, then splinters of bamboo wrapped in thin white cotton cloth are kept in appropriate positions. The splinters are bandaged well with a washed white cotton cloth & tied. Murivenna, a specially prepared oil, is poured over the bandage to enhance the healing. The oil is applied only at this stage, if it is applied earlier it causes difficulty in gripping the affective part & reducing the fracture. The cuff and collar sling which is usually a bath towel is then tied to keep the arm immobilised. Special splinters are used for special requirements. For example, for immobilising dislocated elbow joints, two L shaped splinters are kept at the inner and outer angle of the arm.

In case a very tight bandage is required, for example in fractures of the Tibia, the white cloth used for bandaging is sneered with a paste prepared from wheat flour & rice water.

This increases the strength & rigidity of the bandage.

### ***In Tamilnadu***

These are several well-known traditional bone setting centres in Tamilnadu. Olakkode centre (Kanyakumari district) is one. It is a small tiled house. The physician in-charge of the centre is popularly known as Olakkode asan. He attributes his success in managing bone injuries to the Olakkode Bhagavathi, the family Deity.

The typical steps involved in the treatment of the fracture here are as follows:

The fracture is reduced and used pieces of Plaster of Paris or thin pieces of earthen pots are used instead of splinters. The cast is kept in place with a bandage of white cotton cloth which is fixed using a few pins. This

centre treats a wide variety of fractures. They also prepare their own special Murivenna. Telugupalayam, in Coimbatore District, is situated 3 Kms. off Coimbatore town in Tamilnadu. Vaidya Arjunan of Telugupalayam is a science graduate from Govt. Arts College, Coimbatore & is a well-know traditional bone-setter. He also treats polio, myopathy and other neuromuscular ailments. He is 70 years old and learnt his art from his father-in-law, the late Sri.Arumugam Vaidya. According to Vaidya Arjunan, varying periods of immobilisation are required for different types of fractures. Soft bones like the bones of the fingers and palms need only 3 weeks of immobilisation. The hard bones such as Tibia require a longer period typically sixteen weeks. The range of conditions treated by Vaidya Arjunan include Poliomyelitis, hunch back, club foot, spondylitis, etc. He uses his own traction apparatus. Vd. Arjunan was honoured with the FRLHT Natti Vaidya Rathnana Award for Tamilnadu in 1995. The Mamasapuram centre in Kamarajar district, Tamilnadu, specialises in treating open wounds.

In places like Kanyakumari District where many bone setters are also Varma experts, the knowledge of Varma points is used with advantage in healing fractures and dislocations. (Varma is the Tamil equivalent of marma, the principles of both are very similar.)

### ***In Maharashtra***

The Karjat Tribal block in the Raigad District of Maharashtra has 40 Haad Vaidus, i.e. traditional bone-setters. On an average this amounts to one practitioner for every 750 people!

Sri Kasha Janu Pardhi, a traditional bone-setter from the Kashele village is 70 years old and belongs to the Thakur community. He received his training in bone setting from his uncle, the late Sri Barku Dharma Pardhi, at the age of ten. Apart from bone-setting he also learnt the technique of body massage, treating dislocations, sprains, jaundice and urinary diseases. The leaf used for bone setting is the leaf of teak, *Tectona grandis* known in Karnataka as saag. The root of pasthi, *Dioscorea pentaphylla*, is used both externally and internally. Pasthi roots are rubbed on the rough side of the saag or teak leaves and made into a paste. Sri Pardhi makes use of the locally available bamboo for making splints. Bamboo is cut into splints six inches in length. The plants are tied together with coir threads to form casts. The paste is wrapped around the broken limb using the leaves after reducing the fracture, and over the leaf the bamboo cast is tied tightly with the coir thread. According to the bone-setter, if the broken fragments have not united the paste does not get absorbed. If the paste is absorbed, it indicates that the fragments have united.

### **Wider Acceptance**

The well-known orthopaedic surgeon, Dr.M.Natarajan, Director of M.N. Orthopaedic Hospital, Madras, has visited and observed a number of traditional bone setting centres. Now at his hospital in Madras, Dr.M.Natarajan has adopted some techniques used by traditional bone setting practitioners in the management of fractures. Dr. Natrajan has adopted the Puttur type cuff and collar sling in his practice which consists of two slings, one tied at the wrist joint and other tied at the angle of the thumb and the palm. These two slings are tied together above the wrist. According to Dr. Natarajan, this prevents the wrist dropping, thereby enhancing the healing of fractures of the forearm.

### **Large Number**

An enormous number of plants are used by traditional bone-setters. Ayurvedic classical texts list a wide group that can be used for internal consumption as ointment, as drugs used to treat open wounds, those used in pouring and those used in splints.

Of the 38 Ganas (therapeutic group of drugs) mentioned by Sushruta, five have been found beneficial in a general way in the management of bone injuries.

For example, Eladi gana is used in the preparation of various oils (Ganda thaila) which helps in bone injuries. It reduces itching, urticaria, dermatitis and helps the skin regain its normal colour. Thirteen plants are used to form the decoction part of the thaila, (the other part is a powder made of drugs from Padamakadi gana and ksheera, or milk).

### **Single Drugs Beneficial in Bone Injuries**

Yasti	Clycyrrhiza glabra
Manjishta	Rubia cordifolia
Sariba	Hemidesmus inducs
Kushta	Saussurea lappa
Sarjarasa	Mimosa rubicaulis ssp. himalayana
Jatamamsi	Nardostachys jatamamsi
Devadaru	Cedrus deodara
Chandana	Santalum album
Shathapushpa	Anethum graveolens
Amshumati	Desmodium gangeticum
Patra	Cinnamomum tamala
Jivaka	Coccinia grandis
Tagara	Valeriana wallichii
Lodhra	Symplocos racemosa
Pudarika	Saccharum officinarum

Moorva	Chenemorpha fragans
Sansevieria	Zeylanica
Sansevieria	roxburghiana
Trapusa	Cucumis sativus
AkshaÁ	Terminalia bellirica
Priyala	Buchanania lanzan

### ***Drugs Used in Splints & Immobilization***

Kadamba	Anthocephalus cadamba
Udumbara	Ficus racemosa
Ashwatta	Ficus religiosa
Arjuna	Terminalia arjuna
Palasa	Butea monosperma
Vamsa	Bambusa arundinaceae
Madhuka	madhuca indica
Vata	Ficus bengalensis
Sala	Shorea robusta

### ***Reliability***

How does one assess the efficacy of plants used in traditional bone-setting? At one level, it may be said that if a product or practice is widely in use, particularly in different areas, such use in itself constitutes a kind of validation for this procedure. One can also try and assess the efficacy by analysing the qualities of the drugs from the perspective of indigenous theory, say from the Ayurvedic perspective. As a first step, we have carried out the following exercise.

- i) Identified, wherever possible, the Sanskrit name of the plants.
- ii) Tried to find out if the plant figures in any of the `Ganas' of Susrutha or Charaka listed as being useful in bone setting.

This is based on our understanding that there is a symbiotic relationship between the classical and folk tradition. The classical tradition represents, as it were, folk knowledge and the theory underlying it in a systematic way, using technical language. Conversely, the folk tradition constitutes the specific local application of the classical knowledge and principles suited to each locality.

It is interesting to note that plants such as *Cissus quadrangularis* which is not grouped in the classifications of the ancient Acharyas such as Charaka and Susrutha, is being extensively used by ethnic groups in bone setting practices. Our Acharyas did state that the classifications of vegetable drugs they had done was just a preliminary effort, however.

### **Current Relevance**

It is obvious that there is an extensive body of literature in traditional medicine covering various facets of orthopedics. There are centres of excellence (like Puthur) that maintain their special reputation and living practitioners who carry on this tradition. They receive little help or recognition from health policy makers. It goes to the credit of traditional practitioners, however, that they carry on their trade for the faithful who still surge to their centres. FRLHT will soon be publishing Mr. Balasubramaniam and Mr. Shyam Sundar's book Bone setting traditions and Use of Medicinal Plants in Them, excerpts from which have appeared here.

### **Traditional Bone Setting in China**

The Chinese have made significant efforts to integrate traditional Chinese methods for the treatment of fractures with modern methods. A study reported by Dr. Shang Tienyu, Director of the Institute of Orthopedics and Traumatology in Beijing, showed that the healing time is significantly reduced when traditional Chinese methods are integrated into the treatment. Some of the features of the traditional Chinese bone setting techniques, such as the use of small wooden splints and encouraging patients to undergo functional exercises, have a close resemblance to traditional Indian bone setting practices.

### **Puthur**

#### **A Testament To The People's Faith**

Puthur bone setting hospital lies about 20 kilometres south of Tirupathi towards the border of Tamilnadu. The pavements outside the hospital are strewn with small shops selling various items including eggs, and yards and yards of cotton cloth. These are the items sold to patients visiting the hospital where the doctors use them for treatment.

The hospital itself is a medium sized concrete building outside which one can find numerous patients strolling around with bandages or splints on their body. The atmosphere is rural and the entry into the hospital itself quite informal, with few rules before admission. The entrance is always filled with long queues of patients of all ages, some shouting pain due to a recent injury. Many have recent fractures requiring immediate attention while others have come for a routine bandaging session or a second checkup.

Many are from nearby or outlying villages around the Puthur area. But a large number are also from other states which is a testament to their faith in the Puthur bone-setters. It is obvious that many have come after they were dissatisfied with treatment from various orthopedic units, even some from well-known modern centres. Here the patient pays whatever



fee he can afford (mostly about 5-10 rupees per session) and the bandages and medicine cost about another five rupees.

While at a quick glance, the sheer number of patients waiting outside and the general noise level leads to a feeling of slight confusion, we discovered that in actual fact the treatment procedure is extremely fast and efficient and needs to be witnessed to be believed. On an average the Puthur bone-setters treat about 300 patients per day!

They are divided into batches of ten while the most urgent cases are sent in first for immediate attention. The main ward consists of a long and fairly bare hall except for about ten long wooden tables ranged alongside each other a few feet apart. There is no privacy but the lack of formality bothers no one and in fact both the bone-setting hospitals we came across convey this casual atmosphere. For each patient on an average about 5 to 10 minutes is needed for treatment although a few complicated cases require more time.

The history behind this hospital is an interesting one. Gopal Raju who lived at the turn of the century (and is the grandfather of the present chief bone setter Markandeya Raju), stumbled upon the discovery that certain leaves or herbs growing in the field possessed some sort of medicinal or healing properties. The story goes that when Gopal Raju was hunting in the forest he returned home one day with the carcass of an animal. This carcass was placed on a bed of leaves.

After traveling some distance and finally reaching home, Gopal Raju found that some of the broken limbs of the animal had joined up of their own accord. He realized that the leaves were responsible for this healing effect. Gopal Raju decided to experiment further and tried healing the broken limbs of chickens, dogs and so forth and found that the treatment worked for all of them.

Gopal Raju then began using his knowledge to treat people nearby who had fractures or other injuries. When he died he passed on the knowledge to his sons. Four generations have since practised this skill which is passed down orally or by demonstration and experience.

A strong impression one gets from speaking to Markandeya Raju is his fear that the knowledge and skill of bone setting methods will be misused by those practising only for commercial benefit. He feels widespread practice of traditional bone setting would not necessarily be of advantage to a larger populace and only total dedication and a sense of service on the part of the practitioner can make a person a good healer.

This same conviction, however, has led to a lack of interest in developing any sort of theoretical framework on which he bases his treatment. There has been no effort at any research into the system; neither is there any extensive written material available.

But there is one important bit of modern technology that Markandeya Raju is open to and in fact has adopted: the use of X Rays. He himself studies the X rays brought in by patients and his sons are trained in diagnosing the X Rays. Often the patient is accompanied by relatives or friends and, if need be, is carried in and placed on one of the long tables. While the patient is held still, the bone setter feels carefully for the actual site and nature of the injury by running his hands and probing with his fingers over the area. When he finds the place and is satisfied on whether it is an actual fracture or a dislocation he asks for the patient to be held tighter while he proceeds to actually 'set' the bone the same way an orthopedic surgeon does: by means of pushing, pulling or manipulating the section of the fractured area in such a way that it clicks back quickly to a correct position. The skill and expertise of a bone setter lies largely in this procedure and the better a bone is 'set' the faster will be the healing process. While this part of the procedure in an orthopedic clinic would be done under anesthesia, here the whole procedure is almost casual except for the intense concentration of the bone setter.

After this a mixture of mashed leaves (or herbs) and turmeric is applied as a sort of 'ointment' all around the area of injury. This is immediately followed by firm bandaging with cotton cloth. The cloth is pasted in place with raw eggs. We also met some bone setters belonging to the 'Varma' or 'Siddha' medical system as well as those belonging to 'Ayurveda', each of whom had developed a particular method of treatment. But the Puthur bone setting hospital, seems isolated from any such larger system of medicine and does not seem to directly work under any theoretical framework. They are neither connected directly to the 'Siddha', 'Ayurvedic' or 'Unani' traditional system, nor do they actively interact with any other bonesetter doing similar work.

The Puthur bonesetters, however, have mastered their skill over generations. Their success is evident by the number of patients they treat successfully every day; their value lies in the efficient and affordable treatment they provide for those who cannot travel long distances or pay high fees for modern orthopedic help.

HEALTH SYSTEMS  
**Aamhi Amchya Arogyasathi**  
MAHARASHTRA

*Shubhada Deshmukh  
& Satish Gogulwar*

***The Seed is Sown***

The decade of 1970s marked a phase of civil action in the country under the guidance of Jai Prakash Narayan. These years witnessed an atmosphere charged with activism, and sensitive individuals were irresistibly drawn into the net. So it was in Vidharbha, a region of 10 districts in northeastern Maharashtra and a part of Central India, a place strongly influenced by the Gandhian movement. Several movements such as the Chatra Yuva Sangharsh Vahini that were active in Central India exerted a strong influence in Vidharbha also.

The Vahini, had brought together a group of like-minded youth, committed in their work, having dedicated their lives to the service of the people. This group met frequently, discoursed on various issues, planned collectively and supported each other in their efforts. The group came closer as supporters of the Jagrut Adivasi Sanghatana and in fact became one 'family'. In order to maximize their reach and effect, the members decided to spread themselves across the area, and it was thus that Aamhi Amchya Arogyasathi (AAA) came to be formed in Kurukheda.

AAA was founded on some basic principles. The members of the organisation believed that all programs must come from people's initiatives, and was completely against propagating themselves as leaders. Emphasis was on study and mass-based organisation, and there was a general reluctance to develop huge structures independent of the people. With the people these youth believed that the first step must be of the people. The group stuck together, and all programs were planned collectively, although the objectives of such programs were identical, the manner of achieving these was left to the local initiative, allowing for innovation and difference in styles. All public programs were organized entirely with local help and contributions. Generally, funds were collected once the decision to conduct a program was made. Extra funds were not collected as far as possible, and the balance amount was saved for the next program.

***Programmes***

The initial years saw a lot of experimentation on the program front. AAA tried to organize BPL beneficiaries in order to ensure them the benefit of various schemes launched by the government for them. This effort was

not so successful. Programs to spread awareness about safe and clean drinking water were organized in villages. This led to a study of the problems, where it was discovered that women had to walk a minimum of 5 km to fetch 15 liters of water simply because hand pumps provided by the government were faulty. Thus, AAA attempted the repair and maintenance of 200 hand pumps by training women from the women's groups as well as village youth. In order to do this, Shubhada carried out an intense dialogue with GSDA officials to convince them to train women and plan the training content in a manner suitable to them.

AAA also organized environmental awareness camps, trying to inculcate an attitude of conservation and protection of forests. Although the tribal people are basically protectors of forests, they had no notion of growing the forest, leaving it to grow naturally. In particular, Vriksha Dindis (Plantation drives) were organized, which introduced to the tribal the practice of planting trees. AAA also organized training on the use and construction of bio gas plants.

### ***We for our Health***

The basic philosophy of AAA is "We for our health". Thus, one of the first programs taken up was the study of the traditional healing practices, with the help of traditional healers – the Vaidus. Vaidus from the entire district were identified and involved in a process of study understanding their practices from the scientific point of view and learning new techniques and medicines. Thus, camps and conventions, drives to popularize herbal medicines and training for identification of various illnesses and their treatment were organized. Partners in this effort were Mohan Mutelwar, Paramparagat Aushadhi Sanshodhan Kendra, Lok Swasthya Parampara Sanvardhan Samiti.

It emerged that the general poverty among the vaidus, the code of their service (without the concept of fees) and specialization among them was causing the decline of their practice. Although people desired this service, the vaidus were finding it hard to sustain them and were thus reluctant to learn new techniques or to continue it.

**AAA has facilitated the initiation and establishment of several people's institutions. These include:**

Rani Durgavati Adivasi Mahila Audyogik Sahakari Sanstha, Kurkheda.  
Vidarbha Rankari (Kosa Utpadak) Sanghatana, Awalgaon, District Chandrapur.  
Walmiki Kosa Utpadak Sahakari Sanstha, Awalgaon, District Chandrapur.

This issue was discussed among women, who were ready to receive training. As a consequence, 22 women Arogya Sakhis and 4 Arogya Mitras were trained in health care and treatment of basic illnesses. Together, they treated 2128 patients, and additional 2000 patients were treated at Kurkheda.

With help from Department of Science & Technology, AAA recently trained 150 women in Herbal Medicine practices. These women were trained to use 8 to 10 herbs. They were also taught to make medicines from these herbs. AAA has also established a garden of medicinal plants and nursery on 3 acres of land in Yerandi, a village 3 km from Kurkheda, with support from Kailash Health Foundation. Groups of tribal youth have been trained by Dharnamitra to harvest natural honey from the forest, without killing the rock bees. AAA is providing marketing and quality maintenance support to these groups.

AAA recently participated in the statewide effort to measure infant and child mortality, as a part of the Maharashtra level network under the guidance of SEARCH and Green Earth. It is now planning intervention activities to further its work in these areas. It is also working to spread awareness about mother and child health in the villages.

### ***The Vidharbha Raankari Sanghatana***

In the forest tracts of Gadchiroli, Bhandara and Chandrapur districts dwell the Dhivar Tribe, commonly known as the Raankaris, the traditional harvesters of naturally found Kosa silk cocoons on the Yain and Arjun trees. It was the practice of the Forest Department to lease 5 acres of forest per individual for this purpose. But in a sudden turn-about, the Forest Department undertook logging in the same area, cutting down the same variety of trees that yielded Kosa silk in order to plant teak. Thousands of Raankaris were suddenly threatened with a loss of their traditional occupation. The Raankaris decided to organize themselves under the banner Vidharbha Raankari Sanghatana. Letters and petitions were drafted to protest against this policy.

People from Avalgaon village in Bramhapuri taluka, district Chandrapur, took the initiative and decided to stop the felling of the trees in their area. Thus, for three days, they prevented the forest department people from felling the trees. However, on the 4<sup>th</sup> day, the forest department succeeded in their operations.

Not giving up, the people decided to use a unique technique that demonstrated their feelings for the forest. They marched through the forest, removing the teak saplings and planting Arjun and Yain trees instead. Raan Mauli Aamchi Savali was their slogan. The day was 28<sup>th</sup> August, 1988. People turned out in huge numbers in spite of the heavy rains that caused floods in the small streams in the forest. The forest department officials in the forest met the march, and ultimately, agreed to heed the demand of the people. After this success, the people stuck together. Even today, they continue to plant saplings in the forest, signifying a significant change in their attitudes. Several savings groups formed that experimented with further processing of the raw silk. A cooperative was registered bank loans were made available from Grameen bank.

### ***People's Organizations***

The base of the Jagruti Adivasi Sanghatana and the Building and Wood Workers Union helped AAA to implement these programs. These organizations addressed the basic issue of employment, helping people to find employment under the Employment under the Employment Guarantee Scheme. It brought people across cultures and communities together on a common platform, thus causing Dalits and tribal people to intermingle. Collective marriages – sometimes inter-caste-were also organized, and continue to be organized even today.

Other struggles that were carried out during this time included the Jangal Bachao Manav Bachao Andolan (Save Forests, Save Man), which launched a protest against dams. The Jabran Jyot Andolan organized people around the issues of encroachment and Nistaar rights. People also actively participated in the struggle launched by the Shetkari Sanghatana to get fair prices for their agricultural produce.

Women actively participated in the Building & Wood Workers union and Jagrut Adivasi Sanghatana. The need to address their issues and to find a space for their expression was felt strongly, resulting in sporadic meetings being organized for women alone. One such meeting was organized in 1985 in memory of Savitribai Phule on her birth anniversary. Women's groups from Kurkheda and neighboring villages came together on this occasion, and expressed the need to meet more frequently.

### ***Women Taking Charge***

The women from the building and Wood Workers Union at Visora organized a women's gathering in March 1986. In September 1986, another such camp was organized at Gurnouli. Between these gatherings, a number of smaller meetings were also organized. Thus, information was exchanged. Women learnt to express themselves independently, and brought out a number of issues that concerned them, as well as issues that they felt were most relevant from the point of view of the development of their village. All these programs were organized from local contributions, and the response was tremendous. Women not only came, they spent their own money and actively participated in the discussions and programs.

It was during this time that the AAA team was exposed to the idea of SHGs on several occasions. Thus, the first SHG group was formed at Erandi. In 1990, SPARC funded camp for women facilitated by Sudha Kothari on savings was organized, in which AAA team participated. The idea of SHGs became clearer, and was taken up by a number of women's groups.

In 1992, the government launched the Development of Women and Children in Rural Area (DWCRA) scheme. AAA was associated with the state-level collective process coordinated by SPARC for the proper

implementation of this scheme. In 1995, AAA organized a state-level Sakhi Melava in coordination with Swayam – Prayog, SPARC and Chetna Vikas. The gathering was a huge success and caused the government to recognize the presence of the organization at the state level.

As a result, the CEO of Gadchiroli district invited AAA to help in setting up SHGs and prepare them for accessing loans for income generation programs. This scheme was implemented in coordination with ICDS, DRDA and AAA. A structure was set up, including field workers and block level supervisors to facilitate the village level processes of the formation of SHGs.

The effort resulted in the formation of 295 DWCRA groups and 1465 self-help groups in the district, the largest number in the state. DWCRA groups took up a number of different activities such as purchase and sale of food grains, stone crushing by hand, other seasonal businesses such as decorative articles from Ursodi grass, fluffed rice (pohe and churmure), roasted gram (phutane). This was a major turning point for AAA, since it enabled it to spread across the district, and to try out its internal capacities in terms of training and management at the district level. It provided an opportunity to help the government understand the difficulties that women encounter and to change the policies accordingly.

From the beginning, AAA set for itself some guidelines. The self-help groups were encouraged to make their own decisions independently and collectively in all matters. They were given training and support to undertake accounts keeping and manage bank related work. No AAA person would ever be a signatory in the bank account, and AAA would never act as a conduit for receiving loans, but any loan would go directly to the respective SHG.

How can members of different SHGs give strength to each other? This was the issue discussed at the Sakhi Melawa between 28<sup>th</sup> to 30<sup>th</sup> May 1995, and the Sakhi Shibir at Erandi, 17<sup>th</sup> to 19<sup>th</sup> April 1997, organized jointly by SPARC and Sakhi Sahayog. Experimentation began with the idea of a federation of SHGs. An exposure visit was facilitated by Chaitnya and Masoom. The federation of clusters was also studied.

An intermediary body was needed between the apex body of the federation and the SHGs. The concept of Parisar Sangh was introduced. Ten SHGs in the area would together form a Parisar Sangh. This would enable more control of the members of the SHGs on their own money and decision-making would be more local. It was also attempted to find one cluster level woman worker who would coordinate all the SHGs in that cluster. However, the women tended to rely on her and their own initiative was seen to drop considerably. Hence this idea was abandoned.

Could the women from the SHGs participate in the development of their own village? The Community Based Convergence Services – a unique scheme implemented on a trial basis in Gadchiroli District, provided

women the space to experiment. The scheme attempted to bring together all government programs at the village level and implement them with the help of stakeholders in the village. Thus, the SHGs were pressed into action and various sanitation programs were implemented.

### **Rani Durgavati Society**

A cooperative society was considered as one of the options that would help women to take up economic activities collectively and share profits. The women from Belgaum took the initiative and with the help of Sukhdeobabu, then MLA, registered the Rani Durgavati Society in 1989. Although the women in the district explored a number of occupations, it was the women from Belgaum who took the benefit of the society and continue to run it independently even today. When the loan application for a cotton mill to the Khadi Gramodyog was approved, it was the Belgaum women who showed interest in running the mill.

Today, the sale of honey, hand-pounded rice, herbal medicines produced by various groups in the district with help from AAA and other items are sold by the society. The society also runs a ration shop in Erandi. These activities have helped the women in Belgaum to stay together.

Women also took the benefit of the Nav Sanjeevan Yojana, which provided support to the grain banks under the tribal development plan and ICDS. Most of the villages have a traditional grain bank, which benefits tribal and non-tribal alike. However, the role of women in these traditional grain banks was minimal. Thus, through this scheme, women attempted to manage the grain banks equally with the men.

Another such experiment was undertaken in a smaller area – 10 villages from 6 blocks in the district, where the focus was on the empowerment of women in various social, economic and political areas. Women participated in village level development processes and were supported by men and youth.

Women are also exploring their traditional roles in tribal society with respect to this newfound awareness. The rights that a woman has in property reflect directly on her status at home. So also, the roles and responsibilities that she has to bear have a direct reflection on her health. Thus, the effect of existing traditions and customs on these aspects is being studied.

### **Uniting Against Alcohol**

The trouble caused by freely available alcohol to women came out vocally on almost every occasion where women met. Women said that if alcohol were to be banned, half their troubles would be over. Women everywhere, irrespective of caste and class, took up the issue. Numerous discourses were held to discuss how the problem could be tackled, and the result was a two-point program.



It was decided that efforts would be taken up at two levels: One, lobby with the government to ban alcohol and make its sale illegal. Two, stop the sale of alcohol and make its sale illegal. Two, stop the sale of alcohol in one's own locality in any manner as was thought fit by the local women.

Women took inspiration of similar experiments conducted in Bastar under the guidance of B.D. Sharma. One such experiment was much nearer: the women of Belgaum village had successfully struggled to ban the sale of alcohol in their village as early as in 1984, under the guidance of Jagrut Adivasi Sanghatana

Thus, 500 women signed a petition to cancel licenses of alcohol dealers and sent it to the CM- Shankarrao Chavan. Women took up the issue locally and found their own solutions. All expenses of the program were borne by the women themselves.

Shrimanti Surpam, president of the women's group in the village and member of the Panchayat Samiti, organized the women in her village against alcohol. These women tried to catch and punish the sellers with the help of the police patil. However, they discovered that the police patil would intimate the concerned people so that they were forewarned. The women then decided to march ahead without the patil. Every day, they would start off in the afternoon, visit the local breweries and damage the entire set up. Shrimanti knew how to file cases and followed them diligently. However when the cases came up in court, women were scared off from giving evidences. Shrimanti did not give up, and continued her struggle, with the help of government staff in the village.

The movement against alcohol gained tremendous momentum in the entire district. Shops were closed down, licenses revoked. Women faced the wrath of the powerful shop owners together. Men were warned against consuming alcohol, failing which they had to face heavy fines or worse still, a common beating by the village women.

The greatest advantage of the struggle was that it united women from different castes and class. Middle class women from mousy townships such as Kurkheda came on the streets to join the struggle. Party lines were broken. The Darumukti Andolan raged on for three years.

### ***Engaging with Local Self Governance***

The 73<sup>rd</sup> Amendment to the Constitution brought the concept of self-rule near implementation, and gave rights to the local self-governance bodies in development processes that affected them. Women who were elected on local bodies, together with the members of women's groups and self-help groups, explored their roles within this set-up. Gadchiroli being a tribal district, had the added advantage where self-rule of the tribal people was recognised.

Women identified their priority developmental issues and learned to express themselves in public own developmental agenda in meetings of the self-governing bodies. Elected women members came together with the women's groups to combine their strengths for this purpose.

Programs to develop leadership among women were organized. The status of a woman in her home is a reflection of her property rights and economic status. Thus, these aspects were also explored. The role of a woman in traditional customs, Jat Panchayats (the community decision-making body) are also being explored, ideas that originated at the state level convention on Tribal Self Rule at Nasik in April 2000.

These experiments, although being carried out in Dhanora and Korchi blocks, are serving to inform the efforts across the state. Women in these blocks are also studying their roles in the traditional systems such as the Jat Panchayat, while comparing them to the legal provisions available to them. AAA and the women from these blocks are a part of the regional as well as state network studying self-rule.

Yet another aspect that is critical to tribal people are the rights given to them for the use of their forest. What is the role of women in Joint Forest Management? What rights does a woman have under Nistaar? Does she have separate rights? These are some of the questions that are presently being tackled collectively by the women.

**List of projects presently being Implemented by AAA**

Capacity building and strengthening of SHG project  
Upgrading the skill of tribal women in identification, uses, processing and marketing of herbal medicine  
Total Village Development Project  
Capacity building and strengthening of HSGs (Maharashtra Rural Credit Program)  
Reproductive & Child Health  
Aple Ghar (Orphan Home for young women)  
Samadhan Kendra (Legal Guidance to villagers) – Sukhdevbabu Uikey

**AAA officers to conduct various training programs at its campus at Yerandi**

Basic training for Self-Help Groups.  
Training on SHG and bank linkages.  
Training on Panchyati Raj Act.  
Training on Tribal Self-Rule Act & Participation of women.  
Training on identification of Herbal Medicine, procurement, storage and Processing.  
Training on Rock Bee Non-destructive Honey Collection Process and Processing of Raw Honey.  
~~Training on Construction of Grain Storage Unit.~~  
Training on repair and maintenance of hand pumps.

**What Lies Ahead?**

There is a lot that remains to be done, still a long way to go. The past explorations have taken AAA to different realms, introduced new ideas and new subjects. The people, particularly women, have always led these

explorations. Few realms that have opened up and need further exploration are presented below.

***Self-Reliant Women's Organizations:***

The women's organization in the district is further consolidating itself with the formation of Parisar Sangh. The Parisar Sangh is expected to take up certain support functions such as training for self-help groups, their management and liaison with the banks.

The Parisar Sangh has the potential to grow into a forum that will handle issues such as atrocities on women, help in the planning and management of the village development process, lead the process of development and conservation of natural resources and actively participate in various government schemes. Effort is being directed to realize these goals.

Over and above these, the women organization also has a role to play in Panchayati Raj and Tribal Self-Rule. AAA will act as a training and resource center for the Parisar Sangh. AAA shares Gandhiji's dream of a self-reliant village and is committed to do its bit in that direction. It is extending active cooperation to the villages that are trying to be self-reliant. Thus, organizing men and women into self-help groups, life education to youth, establishment of gram-sabha, and participatory village planning are a part of the efforts in this direction.

**Apla Ghar:** In partnership with M.B. Gandhi Smarak Trust, Nagpur, AAA has established an orphanage for girls. AAA will strive to make the orphanage a comfortable home for these girls where they are looked after as well as their parents would.

**Training Center For Forest Produce-Based Processing, marketing And Business Management:** Non-Timber Forest Produce (NTFP) is an important Part of the tribal and village economy of the region. AAA is planning to set up a training center that will train the local population in processing, marketing and business management for products derived from forest produce. It is proposed to set up this center at Kurkheda.

**Educational Resource and Training Center:** AAA propose to set up a resource and training center to achieve quality improvement of tribal and rural education. It is already developing learning material in Gondi and Chhatisgarhi that are the dominant languages of the region.

**Adolescent Girls:** their children for meetings and other programs would often accompany Women. AAA was sensitive to the needs of these children, and girls have formed their own groups as a result. AAA is working towards making these groups a tool for effective self-

development. These efforts will no doubt help these girls to express them and thus be a better woman.

**Village-based Health Care:** For undertaking activities with women a need is felt for books, periodicals, articles for study purpose. At the same time a collection of songs, plays and activities is also needed for training. The new worker feels a need for an experienced female guide. It is our dream to set up such a resource center that will cater to the needs of Vidarbha.

### ***The Ripples***

Traveling back in time, one remembers how the people lived nearly seventeen years ago. Is there any difference? Has this work created any ripples of change among the people? Comparing the pictures of seventeen years ago that are brought to the mind with our observations of today, a few things appear different. Nearly all the savings groups are functioning independently. People are living better, if the construction of permanent homes in concrete and cement is an indication. Caste is not as much a dividing line – dalit and tribal communities come together more easily and more often; there is a definite increase in inter-caste marriage. The processes of social transformation are well underway. What is more critical is that these processes have been initiated, managed and maintained by the people themselves. With this model, AAA has its job, and its processes cut out for it.

HEALTH SYSTEMS  
**Kashtakari Sangathana/ CEHAT-**  
**Ensuring Community Health**  
MAHARASHTRA

*Nikhil Anand*

***Introduction***

Adivasis account for a little over 9 percent of the population of the State of Maharashtra. The 47 tribes in Maharashtra include the Bhils, Gonds, Mahadeo Kolis, Malhar Kolhis, Dhor Kolis, Warlis, Koknas, Korkus, Gamits, Thakars, Pardhis, Andhs, Pradhans and Dhankas. This extraordinary diversity of indigenous people makes Maharashtra the second most populous state in terms of the numbers of adivasis. Yet these people have faced an unmitigated assault on their livelihoods and lands even in India's most prosperous state.

The extraordinary diversity of natural resources that adivasis have traditionally stewarded have been acquired by means fair and unfair since the British established a colonial government in India three hundred years ago. By asserting ownership of all forest land and drastically altering the tenure of cultivable land, the British succeeded in alienating the Adivasi from their traditional resource base. This process has continued after independence. Those that inherited the British legacy of power and domination did little to alter the fundamental imbalance in the laws that were the causes of so many injustices. Instead, land and resource acquisitions have been critical components to sustain the industrialisation of India in the period since independence.

The struggle for adivasi independence and liberation still continues.

***The Struggles of the Toiling People***

The Warlis of Thane District have long been subjects of rack renting, debt bondage, serf tenure and bonded labour. In the 1940s communist leaders Godavari and Shamrao Parulekar led a militant Warli uprising in which nearly thirty thousand Warli tribals went on strike during the harvesting season. They declared that they would no longer work for landlords and merchants until they were fairly compensated and declared an end to bondage and forced labour. Since that period, the Warlis had remained loyal to the Communist Party of India. Yet, as the CPI got used to its position of political power in the Panchayats, it too began to forward the interests of the large farmers and powerful elite. In this scenario, the *mazoorkars*, or the marginal farmers were

increasingly exploited again, their lives reduced to a cycle of constant debt and migration.

This continued for almost thirty years when many of the newly literate youth among the adivasis began questioning the mutually reinforcing cycles of vulnerability and exploitation. After exposing themselves to many party and non-party democratic assertions of rights and human dignity in the district, approximately thirty young women and men established the Kashtakari Sangathana in December 1978. They decided that while it would be a left leaning democratic organisation, it would remain out of parliamentary politics. It would be sustained on contributions made by the adivasis themselves and seek legitimacy from the people and not from the state. As such, it would not seek registration as a trust or society.

The Sangathana reaffirmed the right to struggle and based its activities on the assertion of this right, integrating its struggles with the wider struggles of those exploited urban and rural poor. The Sangathana would try to rebuild traditions of harmony, equality, cooperation and common solidarity among its members. Its symbol, the closed fist holding the scales of justice represented the unity of people's education, peoples' awareness, peoples' organisation, peoples' action and peoples' power. These five elements would come to represent the critical components of the Sangathana's work.

Over the last twenty years, the Sangathana has effected a widespread movement for social and ecological justice. The range of issues it tackles ranges from everyday forms of commercial exploitation to the exploitation of the forests in Dahanu and Jawhar Talukas. Yet at the centre of these is the idea that adivasis must regain agency over development processes that were consistently marginalising them. For this, the Sangathana attempted to use each different struggle and mobilisation as a tool to strengthen efforts for self-governance. Community discussions became the locus of decision making for Sangathana struggles and served to revive an adivasi stewardship that had been consistently repressed for many years.

Efforts to revive traditional institutions were made in a variety of ways. The village council was revived to handle village issues. These were extremely responsive to reducing the overall vulnerability of adivasis to moneylenders and traders. One of the first issues taken up by these bodies was to reduce and subsequently abolish the practice of high interest consumption loans. The next important issue worked on was the uniform payment, in grain, of agricultural wages. All tribal disputes were also settled in the village without going to either the police or the courts. Disputes were settled in accordance with the original traditions of justice in the village. By reviving these traditions, and also actively recording, documenting and celebrating the oral history and tradition of the Warlis, the Sangathana tried to instill a pride in their often-repressed history.

This pride, coupled with a strong demand for self-determination has made the Kashtakari Sangathana a space for vibrant and transformative politics. In all programs for change, the Sangathana has demanded control of their own development and the right to determine what constitutes that development. In the last twenty years, the Sangathana has implemented a number of successful programs across the different spheres of life. Some of the more issue-based campaigns revolved around the exploitation of adivasis in the fields and industries of wealthy landlord businessmen. Others prevented the commercial logging and destruction of the forests in the area. It has recovered and restored tenant lands, and the women in the organisation have consistently worked towards a system that reduce their exploitation and physical abuse by men.

In its struggle for development justice and accountability, the Sangathana had frequent episodes in which it had to confront the dismal state of public health services in the district. Yet, as is commonly the norm, many do not worry about the state of health services until they fall sick. This allowed the systemic weaknesses in the health system to frequently remain unaddressed and unchallenged. Many of the Sangathana's earlier mobilisations, therefore, were in response to a case of mistreatment or negligence of public health services. An apparent case of negligence in the Sarwan PHC resulted in the death of the patient. In part, this was because no vehicle was available to transport the patient to a referral centre. Members of the village community, began protesting outside the PHC, gheraoing it for several hours. They refused to move until the taluka health authorities promised to make available a jeep and driver in the future to transport referral patients.

### ***Hamare Gaon Mein Hamara Ilaj***

The first systematic effort to improve the health services in the many wadis where the Sangathana is active was in mid 1995. An outbreak of viral fever in Dahanu Taluka followed by the complete inability of the public health system to tackle the problem resulted in a large proportion of the population falling seriously ill. At this time, the Sangathana began having meetings in several villages to see whether there was any interest in supporting a training for village level health workers that could provide more responsive service. In these meetings, the problems accessing the public health system were also discussed, as were the tendencies of private health practitioners to exploit and overcharge patients.

As many as ten adivasi hamlets agreed to support community health initiatives in their villages in the first year. Each village formed health societies that would monitor and evaluate the state of healthcare in their villages. These Peoples Health Societies would each nominate one woman to receive formal and informal training. This worker from each village would volunteer their time and acquire their skills to become *Arogyasathis*, or village level health workers.

It was decided that *Arogyasathis* must be women for at least two reasons. The first was that it gave these women, all of whom were illiterate, a sustainable livelihood. Second, given the gender roles of women as care givers in society, they were far less likely to exploit their acquired skills for economic opportunism.

The Peoples Health Societies each undertook the critical responsibility to raise funds for the training and support of *Arogyasathis* from their own villages. They also organised training camps and ensured critical local support for these workers. With health activists from the Centre for Enquiry into Health and Allied Themes (CEHAT) the first training camp was organised in Dharampur in December 1995 for health workers from each of the villages. Here each worker was given a pictorial manual, basic medicines and training in diagnosis and disease prevention. The trainings, revisions and updates have been sustained on a regular basis to update and review the skills and practices of these vital health workers.

Today, these health workers are the first stop for any that fall sick in the village. As a consequence, the amount of money spent by families on the last episode of illness has decreased since the initiation of the *Arogyasathi* program. While families spent a median of Rs. 120 before the program, they are spending only Rs. 21 now. Approximately 68% of the village make these *Arogyasathis* the first stop in the village for illnesses and medical problems. Unless the treatment is complicated, or beyond their scope, patients are treated by them in the village itself. Since the *Arogyasathis* are based in the village, the travel expenses and inconveniences that patients incur have been drastically reduced. *Arogyasathis* also charge the patients less for their services. These fees, ranging between Rs. 2 and Rs. 7 are able to sustain these health workers in the community. In addition to this, the Kashtakari Sangathana, itself sustained by the adivasi groups, gives a small honorarium to the community level workers once a year.

This locally sustained health program now exists in over 20 hamlets in Dahanu and Jawhar Talukas. Though many in the initiative wished to handle all their needs at the village level, the Sangathana made a decision to also effectively utilise the resources of the public health system to ensure public health services. The first step was taken in 1996; when District officials were invited to a training program. The interactions of district officials with village level health workers was quite successful. The strength of the Sangathana and the constant pressure of their demands results in the local units gaining access to certain drugs and supplies from the public health centres. Supplies of a water purifier, sodium hypochlorite are also now available for disinfecting water.

In keeping with the Health Rights approach, however, the attempt is to make the public health system support *Arogyasathis* and the people's health system. While the villages, through its health committee, would chose and administer



the programs of the health workers, funding for these workers and their medicines should be provided for by the state. This process was greatly facilitated, when, in 1998 the World Health Organisation sponsored a program, administered by the Central government that sought to empower village level health institutions. Of the six Talukas chosen, the work of the village level health workers helped the selection of Dahanu Taluka for the program. The Kashtakari Sangathana was selected as the implementing agency for Dahanu Taluka. The objective of the program is to inform people about the public health services available to them. In a curious twist, however, this project has also served to recognise of the work of the Sangathana in health care. This has greatly enhanced its legitimacy when dealing with government administrative officers and the formal health system.

In a local health scheme, the government appoints *pada swayamsevaks* in each village for the monsoon months. This village volunteer is responsible for chlorinating wells and keeping records of contagious diseases. To do this the volunteer gets a small allowance and certain medicines. Previously, only the politically connected would be selected to do a job they would typically be disinterested in. The Sangathana demanded that *Arogyasathis* be appointed as *pada swayamsevaks* in each village. This would guarantee them some state support for their work. This campaign, though difficult at times, has been largely successful. The village volunteer is now contracted to work for eight months a year, and is expected to work year round very soon.

The location and training of *Arogyasathis* are also used to serve as early warning systems that alert the district level health authorities of epidemics. Each health worker maintains a monthly register of malaria and diarrhea in the village. This decentralised system of village level surveillance proved a timely and effective practice, when in 1997 these health workers were the first to detect an alarming rise in the cases of malaria and quickly moved to take corrective action. The data collected by People's Health Society of Gangodi village indicated that the numbers of cases of malaria were statistically relevant and pointed to an epidemic. When representations to the Taluka offices did not yield any positive results, the data was presented in the Block District Office as evidence to substantiate their claims. The committee insisted that an anti malarial insecticide be sprayed in the village. The BDO acceded to these demands and prevented an epidemic that would have threatened the entire community.

### ***Arogya Yatras- Demystifying Health***

Health activists of the Kashtakari Sangathana knew that exploitation of the adivasis was much easier owing to the mysterious nature of health and medical practices. To alleviate misconceptions while promoting critical thought for community health, they have, over the last ten years organised a series of *Arogya Yatras* that try to do just that. In early 1998, the Sangathana organised an *Arogya Yatra* to demystify the processes of public health and

medicine in adivasi wadis in which it was active. It also sought to make the campaign for health rights popular. The Yatra visited eleven villages. 3000 people from more than 25 hamlets attended over the five-day program.

During the *Yatra*, health activists from the Sangathana and CEHAT used many different tools and methods to increase awareness on various health issues. Pictorials and poster exhibits described proved to be an effective medium for the many adivasis that were partially literate or illiterate. Through these posters, the activists raised many issues relating to people's problems with the health system. Issues of medical malpractice, the high cost of medications and rights to healthcare were raised. In addition to this, common experiences such as women's health issues and its related stigmas were carried besides pictorials describing the ill effects of tobacco and alcohol.

What was unique in this *Arogya Yatra* was that the health workers relied almost exclusively on visual media. Recognizing their ability to draw and engage citizens on health issues, there was also an exhibition of human organs that showed different healthy and diseased systems (such as the lung of a smoker, or the liver of an alcoholic). A mobile microscope provided to be a useful tool to describe bacteria in water. Such live demonstrations were coupled with video programmes and slide shows that demonstrated different ways to ensure community health and well being, such as the importance of water purification and immunisation.

Besides stimulating and building knowledge on health issues at the village level, the health yatras were a critical tool in building an active movement for health rights in the villages. In meetings held following the exhibitions, citizens frequently shared their experiences of community health threats, whether they were caused by social or environmental factors. By understanding the formal role of state health officials they questioned the reasons why these were not being followed. In fact rather than serving the people, officials at state institutions were frequently overcharging them, treating them rudely and not issuing receipts for payments made. Private doctors, unregulated by guidelines were even more blatant in their practices of exploitation.

Thus it was after understanding these issues that even more people undertook the responsibilities of forming public health societies. On one hand, these societies would be governed and sanctioned by the village. Though they would support the training of village level health workers, they would also organise campaigns to force the existing public and private practitioners to be more accountable and transparent in their operations.

### ***Hospital Demonstrations***

The *Arogya Yatras* helped catalyse the public to demand fair and responsive treatment from the public health services. The state of the few PHCs and the

Rural Hospital that exist were dismal. Patients not only had trouble reaching the hospital; they had sufficient difficulty even getting treated there. To protest this, the first large demonstration in front of a hospital took place in May 1997. A large number of people assembled in front of the Rural Hospital in Kassa to highlight the trouble they have accessing and using the PHCs and the Rural Hospital.

Tired of being discriminated in rural hospitals, the citizens asked why the officials at the Rural Hospital forced them to pay bribes, why they were misinformed about the availability of drugs and why even patients referred by health workers were not being given medical attention. In the critical monsoon months, the peripheral health centers were yet inactive and insecticidal sprays to prevent malaria were neglected by the authorities. Not only did they publicly demand answers to these questions, the citizens demanded participation in the management of the hospital.

The demonstrators refused to budge until their queries were answered. In an important outcome, the hospital staff answered each of these questions and agreed to not only disclose their inventory of medicines, but also agreed to not send patients to the medical store as far as was possible. Doctors agreed to treat referred cases promptly, that insecticidal sprays would be carried out in the villages where they had not been performed. In what was a public spectacle, hospital officials who were identified as having taken bribes came out of the hospital with folded hands, apologising for their conduct, and agreeing not to take bribes in the future. The people declared that henceforth no money would be given without a receipt. The Sangathana also used the occasion to formally introduce its initiatives in community health to doctors and officials that were answerable to the public doctors and officials were invited to future programs that followed that they may better synergise their efforts with those of the Sangathana.

Subsequent rallies were also organised in front of village hospital services. The rally in May 2000 demanded of doctors to be more responsive to medical complaints. They also pasted on the hospital walls a list of prescribed rates for different medical services to prevent patients from being misled and overcharged. By constantly monitoring the actions and efforts of the hospital and making sure the hospital staff are aware of their activities, the health activists in the Sangathana hope to keep medical malpractice in these state run institutions to a minimum.

### ***Private Cares***

If monitoring state run services in difficult, ensuring fair practices in private clinics in next to impossible. Private practitioners, whether qualified or not, offer critical health services in a system where public health services are non-functional. Often, however, the profit motives of private practitioners lead to frequent overcharging and exploitation of patients. Dahanu taluka is no

different. Hundreds of private practitioners do bustling business, filling the voids left vacant by a public health system. Ironically, a neglected public health system is the main cause for, and the result of many public doctors running thriving private practices instead of fulfilling their more official responsibilities.

In the absence of guidelines, medical malpractice is commonplace. Two of the main ways this takes place are by the rampant administration of saline infusions and injections even when these are not necessary. Besides administering medicines that are not required, doctors frequently overcharge patients for these. To counter this trend activists of the Sangathana and CEHAT demystified the treatments to the adivasis through poster exhibitions in the Arogya Yatras. Describing saline infusions as salty water, adivasis refused to pay more than Rs. 50 for saline infusions.

To increase awareness still further and increase the pressure on doctors to desist from malpractice, a signature campaign was conducted in Dahanu Taluka to the effect. In May 2000, signatures of over 3000 people were collected from 100 hamlets in the district, instructing doctors not to administer drugs and medicines irrationally. The petitions were collected and submitted to each private doctor by 80 to 200 representatives. Doctors were also instructed to paste posters committing themselves against the irrational use of injections and salines prominently inside their clinics and to public state their intentions to the effect.

The result of such pressure on private doctors was mixed. The Indian Medical Association of Dahanu took a strong exception to these marches, and called an emergency meeting with Sangathana activists. While the Association was angry about having its doctors publicly answerable to the marches, they eventually agreed to take a stand against the irrational use of medicine. Individual private doctors, however, were not as patient, refusing, on some occasions to treat organisation members who demanded accountability of them.

### ***Health Calendar***

Equally unhappy and responsive to public vigilance and pressure were government appointed Auxiliary Nurse Midwives (ANMs) and Multi-Purpose Workers (MPWs). These village level functionaries are responsible for primary health in each village for tasks like distribution of medicine, immunisations, maternal care and clinics. Each ANM and MPW is supposed to visit each and every hamlet in a particular Sub-Centre on a regular basis. In conversations with KS and CEHAT, village health workers complained that these officers seldom visited the village, visiting on schedule even less.

Subsequently, they worked together on listing the official various duties and responsibilities of each worker, keeping in mind their workload in other

villages. In each village, the Peoples Health Societies took the responsibility to monitor the functioning of the government health MPWs and ANMs. To assist in the monitoring and evaluation process, CEHAT designed a series of posters and a health calendar depicting the various functions that the health workers were supposed to perform on their visits. To understand these better, village level meetings were organized in which the PWs and ANMs were asked to explain their various duties and services they rendered, with a specific focus on how frequently they intended to provide these services. When their primary commitments were described in these public meetings, the people asked the ANM and the MPW to provide details about the specific dates they had planned to visit the village as per their Advanced Tour Programme. This is a mandatory document health workers are required to provide to the Public Health Centre. The people asked them to stick this schedule, as much as was possible.

It was at this juncture that CEHAT innovated a useful and creative method to keep records of these visits in order to evaluate each health worker. They devised a picture calendar and a series of pictures demonstrating official tasks of the government health workers. (such as house visits, immunization, pregnant mothers meetings etc.). The calendar was fixed in the home of a member of the Peoples Health Society, and indicated the schedule of the ANM and MPW. On days that the officers came to the village, the community would affix pictures of the tasks performed and have the ANM/ MPW sign against the particular picture, which itself was fixed on the relevant date of the calendar. On days that the health worker did not perform their duties, or not visit the village, the Health Society would mark a cross against those days. Periodically, the Sangathana activists, CEHAT and the PHS evaluate the performance of the relevant health worker and submits the report, along with the attendance muster to the head of the PHC. With this simple, but extremely effective documentation the villagers attempted to force a degree of accountability that did not exist before.

When the results of this exercise did make any difference, these differences were generally positive. In a survey done of Jawhar Taluka, CEHAT found that the average number of visits per month of ANMs had increased from 1 to 1.8 visits per month after the calendar program was implemented. At the same time, the number of visits by the MPW remained roughly unchanged. Even while the frequency of nurse visits went up in 58% of the villages surveyed, they were not altogether supportive of the calendar program and one in two nurses refused to recognise or sign on the calendar even after health societies instituted them. Yet even in cases where the workers refused to sign the calendar to record their presence, the villagers would keep a record themselves, noticing that almost 8 out of 10 ANMs now completed their work before leaving the village.

The health calendar is more than an innovative program that enables the local residents to monitor the performances of health workers. It is one more way by

which the residents in the Talukas of Dahanu and Jawhar are redefining their relationships with the state and its employees. Demanding basic health services as their rights, they consistently force the ANMs and MPWs to be accountable to the people. In this case, as in the case of the private health services, the community actively evaluates, makes recommendations and initiates a framework, which they hope will ensure improved basic health services. Of course, this process of relocating power and decision making to within the community does not always confront positive reactions. As some doctors, health officers and the government are now constrained by a vigilance and accountability that they have not experienced before, their reactions are sometimes retrogressive. Some doctors have even made a representation to the local MLA to enforce a halt to the program, since doctors felt pressured by its demands. Yet in these actions the hypocrisy and intentions of the doctors are revealed, and indicative of the success of the calendar program.

### ***Peoples Health Assembly***

As a continuation of the process of synergising community health systems with an improved public health system, the Kashtakari Sangathana and CEHAT joined over 2000 other organisations, movements and action groups for the Jan Swasthya Abhiyan in Calcutta in December 2000. The event was part of the international effort to make Health for All a global development priority. Fifteen years ago people, social movements, organisations and health officials from all over the world established a campaign realizing global health rights by the year 2000. Involved in the campaign were international organisations, such as the Third World Network, Asian Community Health Action Network, and Consumers International and the Women's Global Network for Reproductive Rights. In India, the active participants in the process included the All India Peoples Science Network, the National Alliance for Peoples Movements, Forum for Childcare and Creche Services, Medico Friends Circle, All India Drug Action Network, Society for Community Health Awareness,

Research and Action, the Federation of Medical and Sales Representatives Associations of India, the Catholic Health Association of India, Ramakrishna Mission VHAI, All India Democratic Women's Association and other health and gender specific networks.

The India campaign sought to mobilise public action and involvement in the dialogue on health policy, focussing on people's initiatives as the most effective way to provide immediate relief to their health problems. As such, the work of the Kashtakari Sangathana and CEHAT in Dahanu and Jawhar talukas was extremely relevant to the strategies being discussed. The campaign also sought to host district level dialogues and workshops to not only raise public awareness about the issue, but also to collect critical data regarding the state of health services. These activities took place in approximately 250 districts all over the country. In Thane district, the Sangathana, participating with BAIF (an agriculture and health NGO in Thane district), and Drishti (an SHG)

initiated a detailed survey of the villages they were working in. They also collaborated with the local hospitals in understanding the facilities that were provided to patients and their families.

The results of these surveys, along with recommendations to the Block Health Officer were made for Thane. Parallel activities were taking place in other districts. By the last quarter of 2000, State Health Conventions were organised by the participants to present the finding of these district level activities and to give publicity to the policy recommendations being made by the people. These were further consolidated in the National Health Assembly, held in Calcutta in Nov-Dec 2000 and subsequently in the Global Health Assembly in Bangladesh in Dec 2000. These assemblies provided useful opportunities to share their problems and successes, endorse each other's work and further crystallized a political campaign to ensure health rights for all.

### **Conclusion**

Seven years after the Sangathana formally launched its health program that is once a peoples alternative and an effort to improve the state of public health services in Dahanu and Jawhar talukas, the community vulnerability to financial and medical attacks has been considerably reduced. This has largely been the result of the consistency and strength of the Sangathana's activities. An increase in awareness coupled with community volunteers being the points of first contact have considerably reduced the susceptibility to medical exploitation. It has also resulted widespread public pressure on the public health system that is finding itself, for the first time, accountable to the people it is instituted for.

The initiative has been facilitated by a unique collaboration between a People's Movement like the Sangathana, and CEHAT, an NGO. All financial resources have been raised by the movement has meant that the effort is sustained by the community. This both enables a sense of ownership of the health successes and enables the community to make choices unconstrained by the influences of external funding agencies. At the same time there has been a move from within the Sangathana that is now demanding state support for village level *Arogyasathis*. *Arogyasathis* are already providing a critical linkage between the patient and the formal health system and are treating most residents of the village. By supporting such people's institutions with recognitions, certifications and financial support, the state can drastically improve its dismal record of health care.

By reframing the issue of community health, the Kashtakari Sangathana has, as in its other programs, successively empowered the village level institutions with a degree of independence and ownership over the processes of development. As critical decision making is relocated into these institutions, the Sangathana has ensured that these alternative development processes will be rooted in people, who would manage these and ensure their sustainability.

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