DIVERGENT REALITIES
IN THE PRACTICE OF BIRTH ATTENDANTS IN INDIA

"DANGER" AND THE "DANGEROUS CASE": DIVERGENT REALITIES IN THE THERAPEUTIC PRACTICE OF THE TRADITIONAL BIRTH ATTENDANT IN GARHWAL, INDIA

by

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ABSTRACT

"Danger" and the "Dangerous Case": Divergent Realities in the Therapeutic Practice of the TBA in Garhwal, India

Traditional Birth Attendants (TBAs) are the primary health care providers for women at the time of childbirth in many parts of the world. In India, particularly in remote areas such as Garhwal, these women play a key role in maternal health. Training programmes for TBAs can lead to dramatic reductions in neonatal mortality as well as in maternal morbidity and mortality, due to improved hygienic practices at the time of delivery. Yet training programmes for TBAs often lack sociocultural relevance, and fail to incorporate an understanding of the TBAs' perceptions of the process of pregnancy and delivery. Understanding more about the role of the TBA as a diagnostician and a decision-maker within a given sociocultural context can make such training programmes more culturally congruent. This research report describes the way in which TBAs (**dais**) in Garhwal interpret obstetrical complications, and how they make decisions regarding the need for cosmopolitan medical care. TBAs in Garhwal interpret obstetrical complications using a variety of explanatory models, arising from an understanding of health and illness which shows influences of Vedic, Ayurvedic, folk and cosmopolitan medical models. These explanatory models often led to a perception of "danger" and the "dangerous case" which is widely divergent from the cosmopolitan medical model. Specific areas are identified where the dais' interpretation of "danger" was particularly divergent from the cosmopolitan medical model. These areas of conceptual conflict result in diagnoses and treatment procedures which can lead to significant delays in the woman receiving needed cosmopolitan medical care. The third stage of action-research process is the development of a participatory training programme, in which the TBA is an active participant. The aim of the training programme is to move towards a shared perception of risk regarding major obstetrical complications.

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TABLE OF CONTENTS

CHAPTER ONE

INTRODUCTION

1.1 Maternal Mortality: Global Scope of the Problem

About one woman a minute - or 500,000 women a year - die of complications of pregnancy, and 99% of these deaths are in countries of the South.[1] Women in the South run 100 times the risk of dying in pregnancy and childbirth compared to women in the North (Walsh 1993:365). The top five killers are hypertensive disease of pregnancy (toxemia), infection, bleeding, obstructed labour and unsafe abortion. Many other women, while surviving the pregnancy and childbirth, suffer long-term consequences of a complicated delivery. Maternal mortality statistics vary strikingly between countries, and are particularly high in South Asia. Accurate maternal mortality statistics for India are

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[1] Rather than using terminology such as developing /developed countries, or Third World/First World, I have elected to use the terminology South/North as the most acceptable choice.

notoriously difficult to obtain, as estimates of maternal mortality based on hospital records do not reflect community deaths (Bhatia 1993). Bhatia's recent community-based study of maternal deaths in South India revealed a maternal mortality ratio of 545 deaths per 100,000 live births (urban women) and 830 deaths per 100,000 live births (rural women) (ibid: p 314).

Women in the South are often at risk long before a pregnancy even occurs. Iron-deficiency anemia, which commonly accompanies poor nutrition, may increase the likelihood of a woman dying in childbirth by a factor of four (Chi et al 1981). Underlying conditions such as hypertension, diabetes, heart disease are also major contributors to maternal mortality. Infections such as hepatitis, tuberculosis and sexually transmitted diseases are often more virulent during pregnancy and cause increased morbidity and mortality (Walsh 1993). Unwanted pregnancies are a major contributor to maternal mortality, both due to the cumulative risk of each unwanted pregnancy and due to the effects of unsafe abortion if the woman decides to terminate the pregnancy.

Deaths from obstetric hemorrhage, infection and obstruction, the three leading causes of death, can be reduced dramatically by rapid access to cosmopolitan medical treatment. Women who live in remote, rural parts of their countries face particular difficulties in gaining access to such treatment quickly. In Bhatia's study, more than half of maternal deaths occurred at home or on the way to hospital (Bhatia 1993). Besides the maternal deaths due to obstetric complications, maternal morbidity due to obstetric complications is extremely high in rural India, and has been estimated to be many times higher than the rate of maternal mortality (Datta et al 1980). Since the delay in obtaining treatment is the factor behind so many preventable deaths, the problem of maternal morbidity and mortality has often been studied with a specific focus on the time between onset of the problem and access to cosmopolitan medical treatment. For example, in a recent review article, Thaddeus and Maine propose a conceptual framework for assessing maternal mortality in terms of the critical interval between the onset of an obstetric complication and its outcome (Thaddeus and Maine 1994). They identify three phases of delay: Phase 1 Delay: Decision to seek care. Phase 2 delay: Reaching a medical facility. Phase 3 delay: Receiving

adequate treatment.

The first phase of delay begins when the first symptoms of the complication begin, until the time when the decision has been made to seek care. Thaddeus and Maine identify four factors contributing to this phase of delay: distance to the nearest health care facility, cost, quality of care available and "sociocultural factors". The sociocultural factors identified are status of women, economic status and educational status and perceptions about the illness.

In discussing women's status, Thaddeus and Maine note that if an obstetrical complication occurs, the decision to seek treatment often does not rest with the woman herself, but rather with a member of the women's family, often her husband or a senior family member. Decisions to seek treatment are closely linked with the status of women in the society, and her perceived worth within the family. Women's perceptions about their illness may also affect access to treatment. A condition regarded as shameful or stigmatizing, such as vesicovaginal fistula, may be hidden even when treatment is urgently required.

Recognition of a complication depends on a social view of reality, not on the health professional's medical criteria. Thaddeus and Maine cite a community survey from Senegal (Dia in Maine 1989), in which only 13% of village women recognized fever and 10% prepartum hemorrhage as important danger signals. The perceived etiology of the complication is another factor which affects the decision about which type of care will be sought (self-care, traditional or cosmopolitan, or some combination). Maine cites a study from Africa, where obstructed labour is thought to be a sign of infidelity and is interpreted as a punishment for adultery rather than a medical problem (Petersen cited in Maine 1985). Although Thaddeus and Maine acknowledge that these factors may play a role, they suggest that such "cultural barriers" are less important than institutional inadequacies and economic considerations in the decision to seek cosmopolitan health care.

Maine's analysis provides a useful framework within which to view the problem of maternal mortality. However, from the anthropologist's point of view, the sociocultural context cannot be reduced to a set of factors which affect

access to care, or to a problematic group of "cultural barriers" to be overcome. Rather, the sociocultural context is the matrix within which the problem of maternal mortality is negotiated and experienced, the ground substance which shapes and modifies each of the succeeding contributors to maternal mortality. As Berman et al suggest, an analysis of problem recognition within the sociocultural context needs to begin at the household level, where illness perception, illness meanings, and behaviours and strategies are first negotiated (Berman et al 1994). Following Berman, I take the approach of studying the "household production of health", or in other words, the process whereby the household members combine their internal knowledge, resources, and behavioral norms with external technologies, services and skills to restore health. This approach studies the obstetrical complication within a holistic context rather than focusing on specific behaviours or beliefs which may serve as "barriers" to care.

While there are many accounts of the practices and customs surrounding childbirth in the anthropological literature of South Asia, few of these studies focus on the perceived etiologies of obstetrical complications. Among

the Nayars of South India, infertility is a highly stigmatizing condition believed to be caused by the wrath of the deities (Neff 1994). Abortion and prepartum hemorrhage is thought to be a result of spirit possession in rural Orissa (Swain 1978). In Nepal, a range of women's reproductive illnesses, including infertility, miscarriage and still births, are attributed to evil spirits, to committing acts of ritual pollution, or to astrologically determined fate (Maskarinec 1992).

Who is the person who negotiates an illness meaning and who decides on appropriate therapy? In this research report, I present evidence to show that during both pregnancy and delivery in rural Garhwal, Uttar Pradesh, India, the traditional birth attendant (TBA), or dai, is the one who initially negotiates an illness model to explain the woman's condition, and who advises on the form of therapy to be used. When referral to hospital is considered, the TBA provides important input into the decision-making process about where and when to seek cosmopolitan health care. Since TBAs deliver most babies worldwide, it is likely that in many parts of the world, she is the key figure in all these aspects of care-giving and care-seeking. Yet detailed

ethnographic accounts of the TBA as a diagnostician and as a decision-maker are lacking. Mani, working in South India, has done a study of anthropological issues surrounding childbirth and fertility which highlights the importance of an understanding of the cultural context of reproduction (Mani 1990). Goodburn, Gazi and Choudhury, working in rural Bangladesh, used focus group discussions with groups of mothers and TBAs to study beliefs and practices during pregnancy, delivery, and the postpartum period (Goodburn et al 1995). Their conclusion was that illness at the time of delivery and in the postpartum period is interpreted by traditional birth attendants and mothers in ways which draw from indigenous understandings of health, which are often widely divergent from cosmopolitan medical interpretations.

1.2 The TBAs' Role in Safe Motherhood Programmes: An Overview

Most of the births in the South are conducted by traditional birth attendants, and as such, these women clearly play a crucial role in maternal health care. TBAs

are usually respected members of their communities, possess considerable practical skills and knowledge, and are available when women need them. They have been described as the "missing link" between the formal health services and village women (Berggren et al 1983).

A widely endorsed strategy for reducing maternal mortality rates has been the training of traditional birth attendants. The World Health Organization (1992, 1986, 1981) has promoted a number of initiatives to study TBA practices, to improve their training and to integrate them into primary health care programmes. Since the 1970s, TBA training programmes have become a major health initiative in many parts of the world. One focus of these programmes has been to train TBAs to provide hygienic care of the umbilical cord. Training programmes have resulted in a dramatic decrease in the incidence of neonatal tetanus (Mangay-Manglacas and Simon 1986). Training of TBAs has also resulted in increased utilization of maternal health services (Mathur et al 1979), and improved access to family planning services. While evaluation of TBA programmes has shown a marked effect on neonatal tetanus mortality rates, evaluation of the effectiveness of TBA training in reducing

maternal mortality has proved more difficult. A review of such evaluation studies has shown most to be limited in scope or flawed in design (Reid 1989). Many weaknesses in current TBA training programmes have been identified, which include lack of evaluation of the effectiveness of prenatal care strategies taught to TBAs (Rooney 1992), lack of monitoring and evaluation of TBA training programmes (Maine 1992) and a lack of attention to the sociocultural context within which the TBA works (Jordan 1991).

Anthropologist Brigitte Jordan's critique of TBA training programmes in Mexico is of particular interest to this discussion (Jordan 1991). She notes that TBA training programmes are usually designed by people with a biomedical background, and neither content nor process reflect the sociocultural context of the TBAs' work. The significance of local beliefs about anatomy and physiology were not understood nor addressed in the context of the TBA training. Finally, Jordan found that the teaching methodology used (lecture format with the use of blackboard and diagrams) was incomprehensible to the TBAs.

Goodburn and co-workers comment that TBA training

conducted by an NGO in Bangladesh did not appear to have a great impact on either the beliefs or practices of the TBAs, and suggest that this might be due to the highly medicalized nature of both the training programme and the maternal health services available, both of which are alien to the TBAs (Goodburn et al 1995).

If TBA training is to be effective, careful attention must be paid to the sociocultural context of the TBAs' work. If TBAs are to refer patients with complications, then the TBAs' link to a referral system is crucial. Yet in many areas, TBAs are regarded with contempt by doctors in referral hospitals. Leedam (1985) notes that in certain countries, the TBAs have a significant role throughout pregnancy and delivery; in other cultures, mothers go through labour and delivery unattended, calling the TBA only to cut the cord. Existing TBA training programs do not reflect this variation in the role of the TBA. Similarly, there has been little written on the design of a TBA training programme which specifically reflects the knowledge and practices of TBAs in a given sociocultural context. Brink's account of the practices of TBAs in Nigeria is one of the few which does attempt to relate

actual practice to the design of an appropriate training programme; however, she does not comment on the issues of perceived etiology of obstetrical complications, or the role of the TBA as a decision-maker in seeking cosmopolitan care in an emergency (Brink 1982).

1.3 Research and Practice on TBAs in India

Some excellent work has been done by non-governmental organizations (NGOs) in India on the knowledge and practice of the TBA. The TBA (called the "dai" in India) has been recognized by many NGOs as a key figure in maternal and child health. Studies of the traditional practices of dais in various parts of India (Bajwa 1991; Jeffery et al 1989; Swain 1988; Kaur et al 1981; Sandhu 1980; Srivastava 1971; Gideon 1962) have sparked interest among NGOs in involving these women in broader roles in community health programmes. Dr Ashok Dyalchand of the Institute of Health Management, Pachod, Maharastra, has involved dais as community health workers since the 1970's, creating a model of an NGO community health programme which has been emulated in many

parts of the world (Dyalchand, pers. comm.). The well known NGO CHETNA (Centre for Health Education, Training, Nutrition and Awareness), in Gujarat, has developed a training programme for dais which recognizes the worth of many traditional childbirth practices and incorporates them into the training programmes. The Voluntary Health Association of India (VHAI), an umbrella NGO with member organizations throughout India, has been active in promoting research and practice on the role of the dai in maternal and child health programmes in the NGO sector.

While studies of the dai in India have documented many of the customs surrounding reproduction, an area which has been neglected is a study of the dai as a diagnostician and as a decision-maker. Little study has been done of this issue, nor is it addressed in the context of TBA training programmes, either in India or elsewhere.

In this study, I report on 8 months of ethnographic fieldwork on the knowledge and practice of the TBA in Garhwal, Uttar Pradesh, India, done in cooperation with a non-governmental organization (NGO) which is active in women's health programmes in rural Garhwal. The research

was the first phase of a three part action-research project which was intended to study the knowledge and practice of the TBA and then to evaluate and revise a training programme for TBAs, which is has been used by the NGO since 1990. The evaluation and revision of the training programme is still underway, and will be reported separately.

From the wealth of ethnographic data generated during the first phase of the research process, the dai emerges as the key figure involved in the drama of the obstetrical complication. She is the one who negotiates the illness experience with the woman, and who makes key decisions regarding etiology and prognosis of the problem. She is also the mediator between the woman and her family, an influential member of the group who decides when and where the woman should go for further treatment.

The dais interpret obstetrical complications using a variety of explanatory models, arising from an understanding of health and illness which shows influences of Vedic, Ayurvedic, folk and cosmopolitan medical models. These explanatory models often led to a perception of "danger" and the "dangerous case" which was widely divergent from the

cosmopolitan medical model. This divergence of perception, and the implications of this for TBA training programmes, is the central theme of this thesis.

1.4 Overview and Organization of the Thesis

Initially I describe the social context of the dai in rural Garhwal, by describing the health resources of the Garhwali village, the social role of the dai, and the nature of the dai's work with the NGO. I then trace understandings about health in the South Asian context, examining Vedic, Ayurvedic and folk ideas and practice about health. This creates a framework within which to understand the interpretations of obstetrical complications by the dai in Garhwal. In this next section, I explore the dais' perceptions of "danger" and the "dangerous case" by a grounded analysis of actual practice, using case studies and accounts of knowledge and practice arising directly out of the primary ethnographic research. From this data I move on to an analysis of the explanatory models that the dais use to make a diagnosis and an assessment of risk. The dais' construction of specific illnesses is highlighted. I then

move on to a discussion of negotiation between explanatory models, and how this influences health-care seeking behaviour, relating this to research work done by others. The implications of this research for the design of TBA training programmes is then explored in a concluding section.

In the design of the training programme for TBAs, the aim is not to work towards a shared explanatory model of health and illness but rather a shared perception of risk in specific circumstances. Such a method has been used by Willms et al in developing a training programme for HIV/AIDS awareness among traditional healers in sub-Saharan Africa (Willms et al 1995). In a training programme for TBAs, trainers and TBAs move toward a shared perception of risk regarding obstetrical complications. While this involves some changes in behaviour and concepts, it is a process of negotiation rather than training. The TBAs' knowledge and practice is regarded as worthwhile and valuable and their essential role in maternal care is acknowledged. The negotiation of a shared perception of risk is a process in which both trainer and TBA move towards common understandings.

CHAPTER 2

THE SOCIAL CONTEXT

2.1 The Research Site

Garhwal and Kumaon comprise the 2 administrative divisions of the Uttarakhand region of northern Uttar Pradesh, often known as the Central Himalayas. Garhwal borders Kumaon to the east, Tibet to the north, and Himachal Pradesh to the west. The terrain is mountainous and rugged, and transportation to the larger cities of the plains is fraught with difficulty, particularly during the monsoon season. Villages are small (population of about 300 on average) and isolated. Development in Garhwal is hampered by the difficulties of access, poor educational infrastructure, lack of political autonomy and lack of a diversified economic base. The village economy is based on subsistence agriculture, supplemented by remittances from male family members who have migrated to the plains in search of employment. Literacy tends to be low,

particularly among women. In District Tehri-Garhwal, where the research was conducted, the 1991 national census reports literacy figures of 72.1% for males and 26.4% for females.

Sri Bhuwaneshwari Mahila Ashram (SBMA) is an Indian non-governmental organization (NGO) which is based in the small town of Anjanisain, in District Tehri-Garhwal, Uttar Pradesh, India. SBMA was founded in 1978 by Swami Manmathan, a social activist from Kerala, who laid the foundations of the organization under conditions of great difficulty. SBMA is now one of the largest non-governmental organizations in the area, involved in the implementation of integrated development programmes in health, education, environmental protection and women's empowerment in all five districts of Garhwal. Swami Manmathan was tragically murdered in 1990 by a former employee. SBMA went through a period of turmoil and reorganization following his sudden death, but is presently flourishing again under the leadership of Sri Cyril Raphael, the present General Secretary.

My husband is an Indian pediatrician and I am a Canadian general practitioner. My husband and I worked as

doctors for three years with SBMA, between 1989 and 1992, focusing on the design and implementation of community-based health initiatives. In late 1992, we handed over the leadership of the health programme to Dr S. Srivastava. I have spent two years studying medical anthropology from McMaster University, and the present report represents the field research for my M A degree, which was conducted over an eight-month period between Sept 1994 and May 1995. I am still closely associated with this SBMA as a programme advisor. During the period of field research it was necessary to shift between roles, functioning at times as a doctor and at times as a researcher.

During 1990, in my role as a doctor working for SBMA, I had designed a TBA training programme based on models used in many parts of the world. This programme has been widely used by SBMA and by other NGOs in the region. The present research project was initiated in coordination with Sri Bhuwaneshwari Mahila Ashram, arising out of the NGO's plan to improve its dai training programme, and to explore new roles for the dai in community health work. The purpose of the first stage of this action-research project was to create a profile of the dai, learning about her role

as a healer, and as a member of her own community. The second stage was a participatory evaluation of the training programme, in which the dais themselves became involved with a critical analysis of their own training needs. The training programme is currently being revised using a participatory approach, with a group composed of dais and NGO health workers providing input into more appropriate course content and process.

2.2 The Health Resources of the Garhwali Village

In a typical village, the traditional birth attendant (dai) is a key health resource. She is the first person women consult for problems related to pregnancy and birth, as well as infant and child care. Also, the dai is often a ritual practitioner as well and may be consulted for a variety of illnesses thought to be related to spirit possession.

In addition to the dai, there may be a vaidya, or herbalist. The vaidya's treatments are usually based on Ayurvedic principles but include various folk treatments as

well. The vaidyas do not play a great role in the treatment of the health problems of pregnant or childbearing women, however. More often, if herbal treatment is given it is the dai herself who possesses the knowledge of the appropriate herb.

In each village, there is usually a ritual practitioner, who may be the pundit of the local temple, or another person who has the power of attracting supernatural forces (often called an "oja" in this area). These individuals mediate between the natural and supernatural worlds, using many forms of prayer, ritual and ceremony.

Beyond the village but living close by, usually in a larger village by the roadside, are the private practitioners. These men often designate themselves as RMPs or Registered Medical Practitioners, although in fact many are not registered. They have little formal training, and have usually learned their trade by working as a compounder or assistant to a doctor practising cosmopolitan medicine in a city. They practise a mixture of folk, Ayurvedic and

cosmopolitan[1] medicine, usually using combinations of treatments which respond to the felt needs of the rural people. Medical treatments they use include intramuscular cortisone injections for strength, mixtures of antibiotics for diarrhea, and IV glucose for many conditions. Most cosmopolitan medicines are given in the form of injections, often using unboiled syringes and needles.

Also living near the villages are government nurses. These women are employed by the government health system to serve the rural villages. In their official capacity, they are supposed to be active in pre and post natal care, family planning and infant immunization. Many of them focus primarily on a search for "cases" for female sterilization. However, unofficially, some of them are very active as health practitioners. In some areas the government nurse is called to administer injections of syntocinon to parturient women, or to participate in difficult deliveries. Sometimes these nurses also perform abortions, either in their own homes or in the client's home. For services such as these, the nurses charge their patients a fee.

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[1]In this report, I use the term cosmopolitan medicine, rather than allopathic, Western or biomedical.

In the research area, there were also the NGO health services. This was composed of small clinics in the rural areas, staffed by two health practitioners, usually a nurse and a pharmacist. The NGO nurse was quite active, going to villages and involving herself with antenatal and postpartum care. She would occasionally be called for a delivery, although more often the village dai would conduct the deliveries.

Government health infrastructure in the research area consists of a government subcentre in Anjanisain, staffed usually by a doctor with either an MBBS (Bachelor of Medicine and Surgery) or a BAMS (Bachelor of Ayurvedic Medical Science). There is a Primary Health Centre at Hindolakhal, 15 Km away from Anjanisain, staffed by a doctor with an MBBS and a Public Health degree. Although the Primary Health Centre is quite large, it is underfunded and both staff and equipment are lacking. The doctor expressed frustration at not being able to do his job because of inadequacies in infrastructure. Emergency surgery such as a Caesarian section, for example, is not available at this primary health centre. The next level of referral is the Government Hospital either at Tehri, 32 Km west of

Anjanisain, or Srinagar, 60 kilometres east of Anjanisain. At both of these hospitals a female obstetrician/gynecologist is posted. The facilities, however, are poorly equipped and if the doctor is away on leave there may be no replacement for her. The next level of referral would be the main hospital in Dehra Dun, which is 150 Km from Anjanisain (six hours by road). In Dehra Dun both a large government hospital as well as many private medical facilities are available.

2.3 The Social Role of the Dai

Dais in Garhwal are usually older married women who have borne their own children. They are almost all illiterate, and have learned their skills either by working with another older dai, or by experience alone. In Garhwal there are three major caste groupings: Brahmins, Rajputs and Harijans. The Harijans are the lowest caste, the so-called scheduled caste. In Garhwal, dais come from all three caste groupings, in contrast to other parts of India where dais come only from the scheduled caste[2]. In Garhwal, dais tend

[2]During the course of the research, I visited a remote area of Madhya Pradesh. Here, dais are always from the scheduled caste and are called to upper caste families only to cut the cord

to work only in their own village, or in just two or three, due to isolated location of the villages. Therefore, the number of deliveries conducted by a dai in Garhwal is low, averaging 1 or 2 a month. Certain dais, however, conduct many more deliveries. These dais tend to be more experienced and may have had formal training as well, through the government dai training programme or through NGO training programmes. These "specialist" dais are often called in for difficult cases by other dais in quite a wide area around the dai's own village.

Dais are remunerated by the family of the woman they have delivered, usually with a small amount of cash or clothing. Some of the dais interviewed in this study were employed by an NGO, Sri Bhuwaneshwari Mahila Ashram (SBMA), the organization under whose auspices this research project took place. Those dais who were employed by the NGO received a regular salary of Rs 600 per month. As part of the NGO health team, the dais were responsible for care of women during pregnancy, delivery and the postpartum period as well as having other responsibilities in the community

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after delivery has occurred. They have no role during labour, except among members of their own caste.

health work being conducted in the villages around the NGO. This work included immunization, family planning, and general medical care. Dais who were SBMA employees were generally found to be useful and effective members of the health team.

Besides their health work with women, dais in Garhwal are involved in the health care and treatment of the infant and young child. They are deeply knowledgable about the health beliefs, behaviours and attitudes of village people. In one village where I worked, a dai told me about all the people in the village suffering from chronic cough. She could even tell me which people had visited the district hospital for Xray, which ones had been diagnosed as having TB and which ones had gone off treatment. Similarly, in another village a dai told me about all the patients with chronic or acute gynecological problems. The dai was able to clearly identify these patients and had access to all their homes. Dais generally share the explanatory models of illness with the village women they serve and their explanations about illness are readily understandable to the people with whom they work. Their therapeutic practices include physical practices, dietary therapy and

administration of medicines both allopathic and herbal. Their therapeutic work extends to veterinary obstetrics as well - if a buffalo or cow is having a difficult delivery then the dai may be asked to assist.

In addition to their medical duties, dais have important roles in the social and ritual life of the village. As ritual practitioners, the dais mediate between the world of the supernatural and the natural. Their explanations of illness range from practical linkages between diet and health to the complex explanations about the ultimate causation of illness.

2.4 Ayurveda and the Humeral Explanatory Model

During the 5th-6th centuries BC the classical system of Indian medical system evolved, which became known as Ayurveda. This complex doctrine was more than just a system of healing disease - it was a philosophical way of leading one's life to a healthy old age. Ayurveda reached its height in the early centuries AD, during the dynasty of the

imperial Guptas, a period of flowering of ancient Indian civilization.

The rise of Ayurveda marked the rise of an empirico-rational system of medicine. There was a clear realization that disease is controlled by natural law, rather than by gods or demons (Zysk 1991). The Ayurvedic concept of medicine as a means of preserving health rather than curing disease alone led to much emphasis on dietetics and instruction on climactic adaptation. The physician, now known as the vaidya, was also instructed to follow strict rules of personal conduct.

According to the theories of Ayurveda, the life and health of humans is controlled partly by karma, the effect of good and evil deeds done in this or a former life. Balance within the human organism and with the environment is seen as fundamental to the concept of health. The five basic elements of the universe (bhutas) are ether (akasa), fire (agni), wind (vayu or vata), earth (prithvi), and water (ap). Health is conditioned by the balance of three primary humours (dosas) in the body: vata (wind), pitta (bile) and mucus (kapha). The five elements are the constituents of

all life, and make up the three humours and the seven physical components (dhatus) of the body. As the five elements contained in food are "cooked" by the fires in the body they are converted into a fine portion (ahara prasada) and refuse (kitta or mala). Body elements are produced by successive transformation of refined food substance into food juice (rasa), blood (rakta), flesh (mainsa), fat (medas), bone (asthi), marrow (majja) and semen (sukra). Semen is the most highly refined element in the body, the vital juice that "tones" the entire organism (Obeyesekere 1977). The three humours (tridosa) are in themselves related to the five essential elements of the universe: Wind (vayu) is related to the air element, bile (pitta) is related to the fire element and phlegm (kapha) related to the water element (Kutumbiah 1962:68). Illness is due to upsetting of the balance of the tridosa.

A vast pharmacopoeia developed in Ayurveda which was well described by such early medical writers as Charaka and Susruta (Sanyal 1964). The herbal remedies, particularly those from the Himalayan region, were exported to many other countries in the ancient world. Medicines were classified according to their taste and their heating or cooling

properties, and were used to restore the proper balance of dosas and dhatus within the body. Medicated oils were used for body massage, and the use of emetics, purgatives and enemas were employed to restore the balance of the dosas in the body (Zysk 1991:125).

Diet was considered at least as important as drug treatment. Inappropriate food may upset the balance of the three dosas. Purposeful regulation of diet was both preventive and curative, and inevitably formed part of the prescription for an illness. Seasons of year also affect the balance of the dosas, and dietetic regulations vary according to season (Zysk 1991:27). In addition to dietary regulation, Ayurveda had many preventive practices aimed at preserving a good state of health. These included taking a daily bath, regulating the bowel movements, exercise, clearing of phlegm from the throat, and proper behaviour.

Illnesses, caused by upsetting of one or more dosas, are classified as either heating or cooling. Pregnancy is thought to be a heat-producing condition, and during pregnancy women were advised to avoid heating foods. This resulted in detailed dietary proscriptions. After delivery,

women are susceptible to excess cooling and to the effects of vata (wind) so they must be protected from the outside environment and from cooling foods (Kutumbiah 1962:187).

A complex classification of the quality of breastmilk exists within Ayurveda, in which breastmilk is thought to be susceptible to vitiation by the three dosas. Milk vitiated by vayu is astringent; milk vitiated by pitta is acrid and pungent; milk vitiated with kapha is thick and slimy (ibid:197). Many children's illnesses were thought to be caused by vitiated breastmilk. When a child fell ill, treatment was often directed at the mother, to restore balance in her diet and to improve the quality of her breastmilk.

2.5 The Supernatural Explanatory Model of Illness

Belief in supernatural causes for illness is very ancient in India. The early historic period of Indian civilization (1200-200 BC) was known as the Vedic period, during which time some of the most famous Sanskrit religious texts were written, including the Rgveda and the Atharvaveda. Hymns contained in the Vedic texts describe

ancient healing practices (Zysk 1991: 17). Disease was believed to be caused by visitation of punishing gods or the evil work of demons. The practitioner was known as the **bhisaj**, and he was primarily a ritual practitioner. Demons as causes of disease loom large in the Atharva Veda. Methods used in Vedic medical practice included the use of spells and incantations. Only a few medicines are mentioned in the ancient Vedic texts and these were used within amulets rather than taken internally (ibid:18).

The rise of classical Ayurvedic doctrine marked the evolution of an empiricorational system of medicine in which most illnesses were thought to have natural causation, often related to environmental imbalances. Although the strong emphasis on demonology as a cause of illness that was seen in Vedic medicine is gone, in Ayurveda there is still much emphasis laid on celestial phenomena as a cause of illness (Zysk 1993:29). Particular planetary configurations were regarded as inauspicious, and were thought to have a negative effect on health. Signs and portents were often used to prognosticate patient outcome. If the physician sees a running horse or a suckling woman while on his way to see a patient, these are good omens, suggesting a positive

outcome. However, if he sees a snake, an enemy, or a one-eyed man, these are bad omens (Kutumbiah 1962:102). Ayurvedic physicians also paid much attention to the dreams of the patient, which were thought to have prognostic import.

The concept of auspiciousness is deeply linked with ways of thinking of health in Ayurvedic tradition. Sickness is itself inauspicious, and may be related to a person's karma, or pap (sin).

The belief in spirit possession as an etiology of illness is widely held in South Asia. There is a complex classification of spirits in South Asia, which may include local deities, avenging spirits, unpacified ancestors, villagers who died by suicide or accident, spirits of the recent dead, dead witches, and ghosts and demons of non-human origin (Maskarinec 1992). Spirit possession can be thought of as the unexpected and unwanted intrusion of supernatural forces into the lives of humans (Claus 1979). Spirit mediumship, on the other hand, is the legitimate, expected possession of a specialist by a spirit or a deity usually for the purpose of seeking aid of the supernatural

for human problems. The medium is often the priest of the village temple, and is called a pujari. In some parts of India, large temples with many ritual practitioners are dedicated to healing by possession (Kakar 1982).

In episodes of possession, the possessing spirit is a deity or a malign being such as ghosts (bhut-pret) or witches (dakan, meli) (Gold 1988). Influence of a spirit, whether ghost or deity, is manifested by similar symptoms: trembling, panting, abrupt gestures, and blurting out fragmentary speech. Action induced by a possessing deity is regarded as auspicious and a source of power (often healing power), but possession by a ghost or witch is seen as torture. Ghosts are believed to be the spirits of those who died an unhappy, violent or premature death. Women who have died in childbirth are commonly thought to become dangerous ghosts known as churel (Rajderkar 1983). Similarly, the ghost of a barren woman is thought to be particularly dangerous to her surviving kin (Neff 1994).

Spirit possession research has been characterized by a reductive, rationalizing approach on the one hand and a contextualizing, phenomenological approach on the other hand

(Boddy 1994:410). In the Freeds' analysis of "ghost illness", spirit possession is studied on a case-by-case basis and is constructed in medicalized terms as hysteria (Freed 1990). Nuckolls' analysis of spirit mediumship in Tamil Nadu, while also a psychological analysis, provides more context (Nuckolls 1991). Sociological theories of possession tend to be deeply contextualized, focusing on the categories of people who become possessed and relating the phenomenon of possession to the society in which these people live. For women who are oppressed, spirit possession may bring attention to their plight and provide some emotional and material gains. Describing the Zar cult in north Africa, Boddy notes that while possessed, women are able to express dissatisfaction at the oppression they face in their social roles, and may gain forms of social power (Boddy 1989). Kakar, an Indian psychoanalyst, notes the helpless anger of young women in rural India at their lack of social emancipation, which is expressed through possession (Kakar 1982).

Human agency, in the form of witchcraft, sorcery or "evil eye", is recognized as a cause of illness in much of South Asia. Humans who unleash their spiritual powers

against others do using symbols and rituals, which include spells, blessings, curses, charms and invocations.

In rural India, witches are women who can cause physical affliction and even sudden death by their supernatural powers. Even after death witches retain powers and can cause death by a single glance. In Nepal, witches are said to cause many illnesses including malarial fever, children's stomach diseases, and aches and pains. Shamans attempt to contain and control the evil influence of witches and other supernatural forces by acts of propitiation such as animal sacrifices, and magical acts such as divination, rituals of binding, burying, and blowing. Through these rituals they endeavour to reorder and refashion both seen and unseen worlds (Maskarinec 1992). In the Jaunsar-Bawar region of Garhwal, dag are witches who prowl at night causing disease, misfortune and sometimes death to their victims (Joshi 1993:263).

Evil eye is often thought to be the result of someone's jealousy of another's good fortune, and can be initiated by the effects of the jealous individual's false praise (Dundes 1981). In rural Rajasthan, evil eye

("nazar") is treated by rituals of transference. A common ritual performed by mother is to circle red chilies and salt around the sick child's head and then throw them into the hearthfire, transferring the malign influence away from her child (Lambert 1992). In Nepal, the shaman has the power both to curse and to cast evil eye, and well as having the power to neutralize the curses of others (Maskarinec 1992).

Planetary configurations are also thought to affect people's health in much of South Asia. Banerjee noted that most of the major infectious diseases of childhood including tetanus, severe diarrhea, pox diseases, cholera were attributed by villagers to the effect of malignant stars (Banerjee 1988).

2.6 Purity and Pollution

A system of socio-religious taboos concerning contacts and dietary habits of the Hindus was already quite well developed by the time of the flowering of the Ayurvedic tradition (Dumont 1980). The system was most clearly formulated in the Shastric texts, which propounded the

doctrine of "dharma" or right conduct. Central to the Shastric texts was the Manava Dharma Shastra or the lawbook of Manu (2nd-3rd century A.D.), which is a treatise on social order from the point of view of the Brahmin caste (Tyler 1973:78). The concept of "dharma" is intimately linked with concepts of pollution. There are two types of pollution: permanent (related to the caste one is born into) and impermanent, which arise from the normal functions of everyday life. Major sources of pollution have to do with death and with bodily emissions. Blood, feces, saliva, urine, and semen are ritually impure and any contact with them renders a person impure (ibid:78). The high caste Brahmins had some ambivalence toward the social status of Ayurvedic physicians, because the nature of their work meant that they would be in contact with blood and bodily fluids, all ritually polluting (Zysk 1991).

The pre-pubertal girl is thought to be in a state of ritual purity (Fruzzetti 1981). Her purity ends with the advent of menstruation, which is thought to be highly polluting. Women who are menstruating are forbidden to prepare food or touch water which will be used by others (Dumont 1980:53). She is also forbidden to perform acts of

worship or participate in religious ceremonies. Childbirth is also highly polluting, and after giving birth a woman is in a state of ritual impurity for a period of between 21 to 40 days. Childbirth, although polluting, is auspicious. The woman who has given birth is celebrated for her power of generation yet shunned for her power of pollution (Thompson 1985).

2.7 Folk Concepts of Health in Garhwal

Joshi, an anthropologist who has studied the ethnomedical concepts of the Jaunsar-Bawar area of Garhwal, makes the distinction between concepts of **dos** and **bimari** - dos referring to the supernatural causes of illness and bimari to the natural causes (Joshi 1993:257). Dos is generally a collective and transgressional cause, and is deeply rooted in the behavioral norms of the society. **Pap** is the dos affecting a person, family or larger social group due to misdeeds (sins). Pap results from atrocities to weaker persons or from sexual offenses. Bimari, on the other hand, refers to a state of imbalance of the body in terms of the hot/cold dichotomy or imbalance of the humours,

particularly wind (vayu). Bimari is an individual and non-transgressional cause of illness, which can result from the intake of inappropriate food or changed weather conditions. Empirically, both dos and bimari must be considered for healing to take place. Unless the sufferer attends to the underlying cause of dos, the therapeutic measures for natural causes of illness would not have much effect. Healing rituals are thus needed which link the microcosm of an individual's life to the macrocosm of wider supernatural forces.

Concepts about health and illness in Garhwal shows influences of all the explanatory models described - the explanatory models are deeply interpenetrated, however. Dais move between models in a flexible and pragmatic way when they interpret the symptoms of illness.

CHAPTER 3

METHODOLOGY

3.1 Background to the Research

I am committed to research that is responsive to community needs, and to making the link between research and practice explicit. This research was initiated as a result of an expressed need of the health section of Sri Bhuwaneshwari Mahila Ashram (SBMA), following the principles of participatory action research (PAR) as described by Fals-Borda (1980) and others. SBMA, an NGO located in Anjanisain, District Tehri-Garhwal, U.P., India, is involved with community health programmes in all five districts of Garhwal, and is planning a major new women's health initiative in District Tehri-Garhwal. One of the products of the action-research process is a TBA training programme which has been evaluated and revised by TBAs themselves. Thus, the research leads directly into an action programme which both involves and benefits those

women who were informants for this research. A community health initiative involving TBAs as community health workers has also developed as a result of this action-research process.

The organization's senior leaders are presently becoming interested in broadening their definition of women's health and developing more sensitive ways of learning about women's health concerns as a part of programme planning. They therefore requested me to train some of their nurses in qualitative research methods. I conducted two training programmes for them and also involved two of their nurses in some of the field interviewing of dais in this research.

3.2 The Research Process

I collected the data over an 8 month period, between Sept 1994 and April 1995. A total of 52 TBAs were interviewed, including 12 in-depth interviews and 9 focus group interviews. Baseline demographic data was collected from 45 of the TBAs interviewed, to develop a snapshot of

key demographic variables: age, religion, caste, literacy and number of deliveries conducted per month (Table 1).

Most of the TBAs interviewed came from a rural area in District Tehri-Garhwal. They were almost all Hindu, but from a mix of castes including Brahmin, Rajput and scheduled caste. For comparative purposes, some interviews were done in other parts of the Garhwal Himalayas (Gairsain, Mussoorie), with TBAs of similar cultural background. Interviews were also done in two completely different cultural contexts: 1. in rural Madhya Pradesh, where TBAs have a different social role and are from the scheduled caste only, and 2. within a Muslim pastoral community known as the Gujjars.

In addition to the interviews with TBAs, interviews with obstetricians, private indigenous practitioners, government medical officers and traditional herbalists (vaidyas) were conducted, to gain a variety of perspectives on the work of the TBAs. Women who had been delivered by TBAs and the health staff of the NGO where the research was conducted were also interviewed. In my role as a medical doctor I saw a number of patients who had been delivered by

TBAs. These consultations provided an interesting way of triangulating the primary data.

Participant observation of TBA practices in villages was done during two week-long visits to villages where key informant TBAs lived and worked. Participant observation of TBA training programmes were also done. Techniques used in interviewing and in participant observation followed the methods described by Patton (1990). These observations were recorded in field notebooks and later entered into WordPerfect data files.

Methods of participatory rural appraisal (PRA) were used with small groups of TBAs, which included body mapping, listing of illnesses by perceived severity, village mapping of illness, and matrix construction. Village health resource mapping was done to develop an understanding of the healers available to women during pregnancy and childbirth and to develop a "hierarchy of resort" in health care seeking behaviour. Body mapping was done to try to gain an understanding of indigenous concepts about anatomy. A ranking exercise was done in which TBAs generated lists of obstetrical problems and then ranked them according to

perceived severity. Lists of hot and cold foods were generated as a way of exploring concepts about appropriate diet during pregnancy. The case vignette approach was also used extensively during the focus group interviews, in which a story illustrating a particular obstetrical complication would be told to the TBAs and their responses and interpretation elicited. Creation of "causation webs" was done in order to elicit indigenous perceptions about complex issues such as son preference. Participatory rural appraisal (PRA) methods used followed the techniques described by Chambers (1989).

3.3 Data Collection and Analysis

Most interview data was collected directly by the principal researcher, with the interviews conducted in Hindi. Since the local dialect, Garhwali, is somewhat different, a Garhwali-speaking interpreter was present during all interviews to clarify any points which were not clear.

Some interviews were conducted by two female field

assistants, Smt Leela Mani, and Smt Unita Thapliyal. These women were nurses employed by Sri Bhuwaneshwari Mahila Ashram to whom I had given additional training in the use of qualitative methods. The nurses conducted some of the interviews, participated in training programmes, and kept field diaries in which they recorded their experiences in working with TBAs on a day-to-day basis.

Wherever possible the interviews were tape-recorded. Some of the interviews could not be recorded, and in those cases notes were taken during and after the interview. Tape-recorded interviews were transcribed in Hindi, and then translated. Translated interviews were entered on WordPerfect files. A sample of the translated interviews were given to another translator for verification of accuracy of translation. Transcription was periodically cross-checked for accuracy.

A hierarchical coding system was developed following the method of Willms (1995). The coding system was used on a small segment of the data, rechecked and then modified.

In-depth interview data from several key informant

TBAs was used to construct life histories. Case studies of women with obstetrical complications were constructed from data obtained wherever possible from multiple sources - from the woman herself, the TBA and the nurse or doctor involved.

3.4 Ethical Issues

Those interviewed were informed about the nature and purpose of the research. Names and certain identifying details of case studies were changed to preserve confidentiality.

A constant effort was made to ensure that the research responded to the needs of the health programme of the NGO and in turn, the needs of women who acted as informants. The research has been linked directly with an action programme, in which the results of this ethnographic phase of the research flows into the second phase of the work, which is a participatory evaluation and revision of the TBA training programme being used by the NGO. This phase is expected to be complete by the end of August 1995.

The research proposal received formal approval by the Home Ministry of the Government of India.

CHAPTER 4

CASE STUDIES: The Dai As a Diagnostician and Decision-Maker

These case studies have been reconstructed from interview data, field diaries and participant observation experiences. Details in each case have been changed to preserve confidentiality. They have been chosen because each illustrates some aspect of the diagnosis, decision-making and management process which dais use when faced with a "dangerous case". Each case study blends cultural voices: the voices of the nurses, the family and the dai herself. A section at the end of each case study provides the biomedical voice on the details of the case.

Case Study 1: Sita, Chamoli Garhwal

Sita is a young woman of 23 years, who was married at age 17. When she was eighteen she became pregnant for the first time. The pregnancy proceeded uneventfully. The dai in Sita's village has years of practical experience, and has received both government dai training and NGO dai training.

She ensured that Sita took a course of iron and folic tablets during the pregnancy and that she got her tetanus shots. She examined Sita when she was eight months pregnant to ensure that the baby was in the proper position. Sita went into labour early one spring morning. When the pains began she quietly took her mother-in-law aside and told her that labour was beginning. Preparations for the delivery had already been made by Sita's mother-in-law. A room at one end of the house had been cleaned, and clean, old clothes and rags set aside. Several women from the village came to assist during the labour: the dai, Sita's mother-in-law, her chachi (husband's younger brother's wife) and her mother-in-law's cousin. The women lighted an angiti (stove) in the corner of the room. Sita's pains grew more regular and more intense. The women attending her encouraged her to walk around, and gave her plenty of hot, sweet tea to drink. Her clothes were loosened and the knot that she usually tied at the front of her saree was undone. The dai placed a knife near the door of the room, to ward off evil supernatural influences.

Sita's labour continued for the next twelve hours. When the pains became quite severe, the dai began to

encourage her to bear down ("jor lagao"). Sita squatted on the floor of the room, clinging onto the shoulders of her chachi, and bore down. Her mother-in-law crouched behind her, pressing against the small of her back with her knee. Sita continued to push continuously for nearly four hours. Gradually she became exhausted. The dai continued to exhort her to push, saying that if she was not strong enough it would be difficult for the baby to be born. The dai then performed an oil massage of the vagina to help to clear the path for the baby. Still the baby was not born.

Twenty-four hours after labour had begun, Sita lay back on a straw pallet laid out on the floor of the room, exhausted from pushing. The dai told Sita's parents-in-law that she suspected that Sita had fallen under the influence of malign spirits, which was he reason behind the delay in the baby's arrival. The dai advised that a pooja (worship) must be conducted to dispel these forces. The dai conducted the first ritual herself, circling rice grains around Sita's body and then throwing these grains into the fire, while reciting an incantation. Still the labour did not progress. On the next day a more elaborate ritual was performed which included the sacrifice of a goat. Sita's pains had become

irregular although still intense. When Sita later described the ritual treatment she had undergone, she said rather bitterly, "The whole thing went on for so long because of this devi-devta business" (devi-devta ki chukker). [1]

Finally on the evening of the third day of pains the dai decided to call the government nurse to see Sita. This nurse conducts many deliveries, and does a variety of interventions including abortions. The government nurse asked the women attending the birth to hold Sita's legs apart, and other women to hold her arms. She then began to pull on the baby's head.

Sita said, "I screamed as I felt her start to pull. Then I could feel my flesh tearing apart, and I lost consciousness after that." A live male child was delivered in this way. Sita had suffered a major tear of the perineum and had great pain with urination and defecation for weeks afterwards.

Sita became pregnant again two years later. She was

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[1]A devi is a female spirit, whereas a devta is a male spirit.

frightened about the impending delivery, after her terrifying experience of her first labour. Her husband decided to take her to consult a gynecologist. They went first to the government hospital, sixty kilometres away. The hospital bore a strangely deserted air. The gynecologist's office was locked. Another doctor told the group that the doctor was away on leave, and that there was nobody replacing her. Sita and her husband had to go on to Dehra Dun, six hours away, where they decided to consult a gynecologist in private practice. This doctor has her own private nursing home, well equipped and efficiently run. Costs of treatment are high, however, and are usually charged directly to the patients. Sita told the gynecologist that she could feel some "flesh" sticking out of her vagina, particularly when she squats to urinate. The gynecologist found a significant prolapse of the uterus, with the cervix almost at the vaginal orifice. The old perineal tear had healed incompletely with scarring. In the gynecologist's opinion, the prolapse of the uterus was probably directly related to the prolonged period of pushing against an incompletely dilated cervix, which had occurred during the first pregnancy, as well as the extraction of the baby by the nurse. This stress had weakened or torn the

uterine support ligaments, leading to prolapse later on. Fortunately, the perineal tear has healed reasonably well. It did not seem to have involved the rectal sphincter.

The Biomedical Voice: Sita, after three days of intense labour, had still not spontaneously delivered. This would certainly be classified as obstructed labour. In training programmes, dais are taught to refer such patients to hospital, yet in this case this did not happen. Postulating a supernatural cause for the problem, the dai prescribed ritual treatment for Sita (in which the dai herself was a practitioner), and nearly forty eight hours went by during the performance of these rituals. When this was not successful, Sita was still not referred to hospital but rather to a government nurse who is active in the area. Although the nurse was able to deliver the baby, Sita suffered serious after-effects: a tear of the perineum and uterine prolapse. Another problem this case illustrates is the early bearing down which many dais encourage. Bearing down against an incompletely dilated cervix exhausts the labouring woman, and can cause weakening of the uterine ligaments.

It is interesting that in this case the dai called on the government nurse to assist. I am quite certain that this dai would have been capable of delivering this baby in the same way the nurse did. However, because of Sita's family connections with the NGO, the dai was probably worried about "messing up" the case. Calling the government nurse was possibly a political move to protect herself.

This case study also shows some of the problems in the system of hospital referral in rural Garhwal. When Sita went to consult an obstetrician, the government hospital's only obstetrician (responsible for women's obstetrical problems in the entire district) was away on leave and had no replacement. Sita and her husband were obliged to go on to Dehra Dun, six hours away. They decided to consult a private obstetrician. Garhwali villagers have much more faith in private practitioners than in government doctors, despite the high costs of treatment in the private medical system.

Case 2: Jyoti, Pauri-Garhwal

This is a case reported in the field diary of the

SBMA nurses, Smt Leela Mani. Names and a few details have been changed.

Jyoti was expecting her third child. The local dai, who had never been a participant in either NGO or government dai training, would be delivering the baby. However, since Jyoti knew the clinic nurse quite well she asked her to also attend the delivery. The nurse had seen Jyoti several times during the pregnancy and had given her tetanus shots. When Jyoti went into labour a girl from the village came to call the SBMA nurse, our informant. It was quite a long way to the village and it took her over two hours to reach there. Once she got there, the small room was already crowded with five other village women. Jyoti was in the first stage of labour, and the dai was massaging her back. Shortly after the nurse entered the room, the **devta** came upon the dai. The dai gave a long scream and became stiff, lying on the floor of the room near the woman in labour. The other women in the room were quite frightened, and fell completely silent. The dai began to shout, saying: "You didn't follow my advice. I am testing you. If you don't follow my advice further then you will be harmed." The nurse didn't know what this devta had said previously or what he had promised to

these people. But the women in the room now decided that they must appease the anger of the devta. They decided that a ritual sacrifice was needed, and went to consult the pundit. After about half an hour the pundit arrived with a goat, which was brought into the room and made to walk around Jyoti, who was feeling restless and in great pain by now. Then the people took the goat out of the room and later it was sacrificed by the pundit. By now Jyoti was in the second stage of her labour. The dai squatted behind her, pressing against the small of her back. Jyoti was holding onto the shoulders of another woman for support. When the head of the baby was emerging the dai put her bare foot against the perineum to prevent it from tearing. When the baby was born she did not cut the cord right away. She waited until the cord pulsations had died away and the cord had become white. Then the cord was cut and shortly afterwards the placenta came out. It was wrapped in an old cloth and later taken out to be buried. The baby was a girl. Jyoti's first baby had been a boy but the second and third were girls so everyone was expecting a boy. The family was very disappointed. For this baby, no custom or ritual such as the naming ceremony was performed.

On the third day after the delivery the nurse heard that the baby was sick. Many children in the village were suffering from fever, and the baby seemed to have the same illness. The dai said that the baby was sick because Jyoti had eaten some food which was not right for a woman after delivery (moong lentil and rice). To correct this, the mother-in-law was told to give only two rotis each mealtime to Jyoti. The baby became even sicker and the village people thought that they had not satisfied the devta's desires properly during Jyoti's delivery. So on the 21st day after the birth they arranged a big pooja (worship) and sacrificed one goat and two roosters, to make the devta happy again. The baby did survive and Jyoti also recovered completely.

The Biomedical Voice: The NGO nurses have a somewhat ambivalent relationship with the dais. They do respect the dais' skill at assessment, and they also realize the tremendous power of these women as decision-makers in women's health. Yet they often are very critical of practices by the dais which do not fit the biomedical model. Throughout both nurses' field diaries the tension between the dais' models of illness causation and the nurses'

biomedical explanatory model is plainly seen.

The baby's illness, in which a prominent symptom is fever, is constructed by the dai as related to dietary imbalance causing overheat. Treatment is done by changing and restricting the breastfeeding mother's diet.

Case study 3: Geeta, Pauri-Garhwal

Geeta is a woman of 34 years old who has had six previous pregnancies. In her village the dai has eleven years of experience and is well respected for her knowledge of herbal treatments of various illnesses. The dai herself gathers the herbs in the jungle near her home and prepares and processes the herbs for administration. This dai has had one brief (3 day) training programme given by an NGO. In this pregnancy, Geeta was examined twice during the pregnancy by the village dai who told her that everything was normal. She was given detailed dietary advice, and warned to avoid heating foods such as peanuts, harsha (a type of fried sweet made of flour and ghee), meat, eggs and various types of green vegetables. Geeta usually listened politely to the dai, but on one occasion she said, "Oh,

Didi, I don't believe in all that! Did you know that I have eaten an omelette last evening?" The dai was quite angry with her, and told her she was a foolish woman, who would bring harm to herself and to her baby by eating heating foods during pregnancy.

Later in the pregnancy, the dai ensured that Geeta went to a nearby clinic where a nurse gave her tetanus shots. Tablets of iron and folic acid were also given at the clinic, and the dai reminded Geeta to take them, saying that they would give her strength during her pregnancy. Geeta took them for 10 days, but then discontinued them, because they caused constipation.

Geeta went into labour a few days before her due date. The labour progressed rapidly and within three hours after the pain had begun a male child was born. The child did not breathe immediately after birth. His skin was bluish and he had a slightly swollen appearance. The dai clapped her hands loudly in front of the baby and blew into his ears. The baby gave a feeble cry and began to breathe. Then the dai turned her attention back to Geeta. In this area, most dais wait till the placenta is delivered before

cutting the cord. Geeta was bleeding quite heavily, and even after the placenta came out the bleeding continued. The dai did not attempt to treat this, but merely added more straw to the bedding pile on which Geeta was lying. Gradually the bleeding subsided. Then the dai picked up the baby and examined her carefully once again. She took a plastic container of brown powder from her shoulder bag and mixed a little of the powder with water. She carefully fed a spoonful of this reconstituted mixture to the baby. She then cleaned the baby and the mother and changed the bedding on which they were lying. She added some more wood to the angiti which was burning in the room. Then she called Geeta's mother-in-law aside. She explained that Geeta's baby was suffering from "dubba rog", a complication of the neonatal period which was caused by the effects of over-heating during pregnancy. Geeta's incautious dietary habits in pregnancy had undoubtedly been a factor in the development of this problem. Now, the child must be treated by the herbal preparation which the dai had herself prepared. She gave the mother-in-law detailed instructions about further administration of the powder to the baby. Then she left, promising to return early the next morning to check on mother and baby. But when the dai returned the

next morning, the baby had died. The dai asked the mother-in-law about the treatment and heard that the mother-in-law had used hot fomentation to the baby's abdomen as a treatment. The dai felt that this treatment was wrong, as the baby was suffering from the effects of overheat, and the fomentation only added to the problem.

The Biomedical Voice: This dai had participated in a brief training programme from the NGO, two years before this case takes place. She encourages Geeta to get tetanus shots from the clinic and tells her about iron and folic acid tablets. However, she also gives detailed dietary advice which includes a long list of prohibited foods. These foods which are not permitted in pregnancy are seen as "hot", and potentially harmful. The most feared complication of eating "heating" foods in pregnancy is the development of problems in the baby, notably "dubba rog". Babies suffering from dubba rog usually are bluish in colour at birth and may have a swollen body and face. The condition could encompass several diseases recognized by biomedicine, including neonatal asphyxia, congenital heart conditions and possibly Rh disease.

Geeta also suffered from a moderate postpartum hemorrhage following the birth of this baby. She was at risk for such a problem, since this was her seventh delivery and she was also quite anemic. The dai, however, did not feel that the bleeding was of concern, as the bleeding associated with childbirth is considered polluted and should be expelled.

Case Study 4: Rita, Chamoli Garhwal

This case is excerpted from the field dairy of Smt Leela Mani, SBMA nurse.

Rita is the 18 year old wife of a well educated man in a small town in a remote area of Chamoli Garhwal. It was Rita's first pregnancy, and the NGO nurse had been seeing her several times for routine care during the course of the pregnancy. Rita has a Class ten education, and the nurse felt that because of her education she paid a lot of attention to a good, well balanced diet and to the maintenance of cleanliness throughout the pregnancy.

One morning in early winter Rita developed mild

labour pains. The nurse checked her and found everything normal. She advised her that since it was her first delivery things would take time. She suggested that Rita keep walking and moving around, and that the delivery might not occur till late that evening. Because the nurse was nearby, Rita didn't tell the government nurse or the midwife that her pains had begun. In this area (a small town) almost all the deliveries are done by the government nurse (who charges for her services), sometimes assisted by the local dai.

In the evening at 6 pm the pain started increasing. The waters had not broken, and so the nurse encouraged her to continue to walk around. But suddenly the government nurse and the local dai appeared, having been told about Rita's condition by other women in the village. They clearly seemed to feel that they should be the ones conducting the delivery. The NGO nurse did not want to argue, and politely invited the government nurse to conduct the delivery. However, the NGO nurse did not leave, thinking that perhaps she could help in some way. The government nurse came in and did a vaginal examination using just her bare fingers. She then said, "The baby is coming

out and if the baby is not born now then the baby will die due to suffocation." The government nurse and the dai made the woman lie down and they tried to dilate the vagina by doing an oil massage. Then the nurse sent the dai to bring a syntocinon injection from the chemist shop in the town. The nurse injected Rita with syntocinon through her saree, not even bothering to expose the skin. The NGO nurse protested but the government nurse and the dai refused to listen. Then the dai and the government nurse started pressing Rita's abdomen, squatting behind her and bearing down on the fundus of the uterus with great force. Although this went on for a long time, still the delivery didn't occur. Then Rita's mother-in-law took some rice grains, rotated them around Rita's body and then threw them into the fire. The ritual was repeated four or five times during the next two hours. But the delivery didn't occur. Then the nurse said to the mother-in-law, "This woman has developed a uterine ring, and she should be taken to the district hospital." Rita's family became very anxious. Such a journey would be both difficult and expensive. Then the dai said that the delivery should not be conducted in this house because the houseowner's daughter also had had a difficult labour and had to be taken to the district hospital during

her labour. She also said that the first wife of Rita's husband had died due to difficult labour. Meanwhile, Rita's father-in-law had arranged for a taxi, and Rita was taken to the hospital. The government nurse said that she could not accompany Rita, but the dai and the NGO nurse both offered to go. Rita's parents-in-law were also in the car. At 10.30 in the night the little group left the house, reaching the district hospital at midnight. Five minutes after reaching the hospital Rita gave birth to a healthy baby girl. There was no time to call the doctor, and it was a Lady Health Visitor, who had very minimal medical training, who delivered the baby. The NGO nurse wrote afterwards in her report, "There was no uterine ring at all! The baby was a healthy baby girl. And because the delivery had been difficult everybody was happy even though it was a daughter."

At 1 am the little group started their journey back. The whole time the baby was in the lap of the NGO nurse - the mother-in-law did not want to touch the baby because she would become polluted. For many days after the baby's birth the mother-in-law used to observe strict practices after washing the baby's clothes. She would take a bath with

cow's urine and sprinkle the same around her house to make things pure.

The Biomedical Voice: This case was taken from one of the nurse's field diaries. This woman had a prolonged first labour (24 hours), but in the end she delivered spontaneously, so it was not truly a case of obstructed labour. The interesting aspect of this case is the process of negotiation of the illness and the choice of therapy. The government nurse diagnoses a "uterine ring" with great authority (such a biomedical diagnosis does not exist, as far as I know). She calls for a syntocinon injection, which she proceeds to inject with no regard for sterile technique, much to the righteous indignation of the NGO nurse, who watches helplessly. In the end it is the NGO nurse and the dai who accompany the woman to hospital, and the baby is delivered safe and sound by the Lady Health Visitor at the hospital. Pollution taboos surrounding the newborn baby are strictly observed by the mother-in-law.

Case Study 5: Sushma, Tehri Garhwal

Sushma is a 26 year old woman who was nearing the end of her second pregnancy. The dai in Sushma's village

had ten years experience and was well known by the village people. She had not been a participant in any training programmes. When Sushma went into labour late one winter night, she was taken to the cowshed below the house. The animals had been taken out and fresh straw had been spread on the mud floor of the room. Three of Sushma's female relatives attended the birth, as well as the dai. By early morning the pains became very intense and regular and Sushma needed to push. Suddenly the umbilical cord appeared at the introitus. The dai was shocked - she had never seen or heard of this complication before. Pains continued yet the baby did not deliver. The dai told the labouring woman that the baby's cord had come out, and that she thought the woman should go to hospital. The dai offered to explain the situation to the labouring woman's husband and to help them make the necessary arrangements for transfer to the government hospital at the nearest sizable town. Sushma grasped the dai's hand and said that she did not want to go to hospital..."Mujhe sharm ati hai"...(I am too ashamed). She begged the dai not to tell anyone about this problem and not to send her to hospital. Then she said, "Do whatever you can to deliver this baby, but I won't go to hospital." The dai was worried, and she and the other women in the room

tried to persuade Sushma to allow the dai to tell the family members. But Sushma adamantly refused. Then the dai felt she must take some action. She put her hands inside Sushma's body and pulled on the baby's head, keeping her feet pressed against Sushma's perineum. The baby's head initially felt stuck so tight it would not move. But by rotating the baby's head to one side, the dai was able to get it to move. Slowly the baby's body moved down the birth canal. Sushma screamed and clung onto one of the other women for support. Finally the baby was delivered, stillborn. There was a tear of the perineum, but Sushma was otherwise all right. She recovered without complications.

The Biomedical Voice: Sushma's baby is delivered in the cowshed, which was traditionally the place for birth in Garhwal. Since childbirth is seen as a highly polluting process, the living area of the house was not used for this purpose. However, this practice is changing rapidly in Garhwal. Dai training seems to be a factor in this change, and the general process of modernization sweeping across Garhwal is also part of this change. In Sushma's delivery a major and rare complication occurs, prolapse of the cord. The dai recognizes the seriousness of this problem and tries

her best to get Sushma to seek hospital treatment. However, Sushma refuses. Sushma's shyness ("sharm") emerges as a key factor preventing her from seeking help. In talking about this difficult case, which only happened a few weeks before the interview, the dai's concern clearly comes through. She said to me, "By the grace of God I was able to deliver that baby and the woman became alright. The baby was dead, of course.... but at least the mother survived. Do you see how we women of Garhwal do not get help when we need it?"

Case Study 6: Veena, Pauri-Garhwal

The NGO nurse was called to attend Veena, who was in active labour and was bleeding quite heavily. Although Veena lived near the NGO clinic she had not had any prenatal care. The NGO nurse was very concerned about the amount of bleeding Veena was having and asked her to go to hospital. However, the woman refused adamantly, saying "Please don't send me to the hospital.... I will deliver the baby here only." As Veena's labour progressed, bleeding continued. After about four hours she gave birth to a stillborn baby, a female. When Veena found out that the baby was dead, she wept bitterly. She had had five previous pregnancies, of which only one girl child was surviving. In four of the

previous pregnancies she had managed to carry the babies nearly to term, but then shortly before the due date the baby had died in the uterus. She had not consulted a gynecologist for this problem. The nurse was told by others that the family was convinced that supernatural forces were affecting Veena and had spent a good deal of time and money on ritual treatments for Veena. In the present pregnancy, the baby's movement had stopped 2 days before the onset of pain. Veena had not told anyone that the movement had stopped.

I also saw Veena a few days after this stillbirth. She was still extremely distraught about her loss. We discussed her complex obstetrical history. She had not consulted a gynecologist and had not had any investigations to try to determine the causes of the repeated stillbirths. She agreed to have blood tests done, including Rh factor to test for Rh incompatibility, ABO blood grouping and a VDRL test. Once the tests were done, I wanted her to consult a well-known gynecologist in Dehra Dun before she got pregnant again. I also suggested that they delay another pregnancy until Veena's health had improved. However, she never did get the tests done or have the consultation.

The following year I was surprised to see Veena, who was again pregnant and nearing term. She came to consult me on this occasion because the baby's movements had stopped the day before. I could hear a fetal heartbeat, though, so the baby was still alive. I told Veena and her husband that if they wanted to save this baby, urgent intervention would be needed. I suggested that they go immediately to Dehra Dun where an induction of labour could be done. Veena was terrified at the thought of the journey to Dehra Dun and the hospital admission. She and her husband did not agree immediately and said she would have to discuss it with the rest of the family. Several family members came to see me later that day to discuss the plan and finally they agreed. In Dehra Dun, Veena's labour was induced and she delivered another male child after just three hours of pains. The child, although fullterm, developed respiratory distress shortly after birth and had to be transferred to a pediatric intensive care unit in another hospital in Dehra Dun. The Xray showed some type of congenital pneumonia. Despite all odds the child slowly began to improve and was discharged home after eight days in the intensive care unit. I heard from others living near Veena and her husband that the village pundit had conducted a very large and impressive

pooja about a week after their return. The nurse told me that Veena and her husband wished to honour the devi for the safe arrival of their second son.

The Biomedical Voice: Veena was never fully committed to pursuing biomedical treatment for her obstetrical problems. She didn't come as requested for pre-natal visits, she didn't get investigations done, and with the last pregnancy, she almost didn't come to hospital either - it was only with great difficulty that we persuaded her. Veena had an entirely different explanatory model for her obstetrical troubles. The nurses mentioned to me several times, "They are spending a lot of money in all that devi/devta business." It would be interesting to know in greater detail how Veena fitted her biomedical treatment into the explanatory model that she held.

Case Study 7: Rajeshwari, Chamoli Garhwal

Rajeshwari is a woman of 25 who had one previous pregnancy which had been entirely normal. She is now pregnant with her second. When she went into labour she was attended by the dai who worked in her own village, a woman

with just a few years of experience. The labour proceeded well initially. Rajeshwari's pain became intense and she began pushing. Suddenly one of the baby's feet appeared at the introitus. The dai became very worried. She knew that this was a dangerous situation and she felt that she needed assistance. In a nearby village lives another dai who has many years of experience and a excellent reputation for being able to handle many difficult complications. The dai asked one of the other women in the room to go immediately to call this woman. It was three in the morning on a dark and rainy winter night. The woman, taking her husband with her, set off for the second dai's village. Although the village was not far away, it was frightening to walk through the little patch of jungle separating the villages, where leopards often prowl. When they reached the second dai's house they banged on her door, telling her that she was urgently needed. The dai, in her hurry to follow did not even put on her sandals but carried them in her hands. The three of them ran back to the first village and into the dark, smoky room where Rajeshwari was lying. The baby's foot was still sticking out of the Rajeshwari's body. The second dai washed her hands well and put on a pair of latex rubber gloves that she had in her equipment kit. She gently

inserted one hand into the vagina and was able to feel the other leg, flexed at the knee and just at the lip of the cervix. She was able to grasp the foot and bring the leg down. Then she carefully pulled on both feet and delivered the baby's body. When the head reached the perineum she was able to insert one finger into the baby's mouth to give her some grip on the head. Supporting the perineum with her left hand, she was able to deliver the baby's head. The baby was a healthy male child who cried immediately after birth.

The Biomedical Voice: This dai, a "specialist" dai in the area, has delivered many cases of malpresentations, including this case of a footling breech. She described her technique of delivering this baby to me on two occasions and her description was clear and detailed. The method she used was certainly appropriate and effective. She said she had not learned it from anyone but had worked it out for herself. She has delivered many sets of twins and even a set of sextuplets (all of whom died). She, like many other experienced dais in Garhwal, also does a procedure to turn a breech baby into the vertex position before the woman goes into labour. I have never observed this procedure and I think that fewer dais actually do it than claim to do it.

Often I have seen a dai tell a pregnant woman that the baby's body is slightly out of alignment and will apply oil and massage the baby back into proper position. Actual version of a breech into a vertex is much rarer. Still, I think that some dais do perform this procedure, and several have described it to me in considerable detail. They say that version "in utero" is safer for the woman than allowing the baby to deliver as a breech. This may well be true, particularly given the remote locations where these women live.

The dai in this case is also called upon to deliver complicated cases among animals. She once described to me in great detail how one can deliver a breech buffalo!

Case Study 8: Leela, Chamoli Garhwal

Leela is a woman from a remote village in District Chamoli Garhwal. She was expecting her first baby, and had an uncomplicated pregnancy. She went into labour early in the morning. The dai had about 10 years of experience, although she had not participated in any government or NGO training programmes. The labour progressed smoothly, with the dai in attendance throughout. The dai massaged the

woman's abdomen and lower back, and when the baby was about to be born she squatted behind the woman to exert pressure on the fundus of the uterus. Leela is a young woman of only 18 and this was her first experience of childbirth. She was very shy, and refused to remove her petticoat or even lift it up when the baby was about to be born. The dai did not press her to remove the petticoat, and therefore when the actual birth of the head took place the dai did not observe it. The baby was delivered onto a bed of straw placed underneath the woman, and covered with an old piece of saree. Immediately after birth the baby cried. The dai got Leela to lie down and relax on the straw. She carefully milked some of the cord blood back towards the placenta, to ensure that the placental blood did not mix with the baby's blood. She was waiting for the birth of the placenta before cutting the cord. However, half an hour passed and still the placenta had not delivered. The dai checked to make sure that all cord pulsations had stopped and then tied the cord with thread and cut it with a razor blade. She wrapped the baby in old rags and laid the child on the straw near the mother. The child would be not be given breastmilk for the first three days. During this time the mother would express the colostrum and discard it.

Meanwhile the placenta had still not delivered. The dai became concerned. She massaged the abdomen with warm oil. Then she instructed Leela's mother-in-law to prepare a drink made of hot milk mixed with ghee. This was given to Leela to drink. An hour later the placenta was still inside. Then the dai made Leela sit up. She went behind Leela and grasped her under the shoulders, and shook her vigorously up and down, in an attempt to dislodge the placenta. This was followed by another oil massage to the abdomen. All these efforts were unsuccessful. Leela's mother-in-law became very worried. The dai told her that the placenta would have to be removed or else it could have a poisonous effect on the body. She asked Leela to lie down. Leela once again protested that she did not want to raise her petticoat, but this time the dai was very firm. Leela had to raise her petticoat and allow the dai to examine her. The placenta was not in the vagina and the dai could feel the cervix closed over the umbilical cord. The dai carefully inserted her fingers through the cervix and located the placenta, high on the posterior wall of the uterus. She began to slowly dislodge the placenta, shearing it off the wall of the uterus with her fingertips. Leela gave a cry of agony. As the placenta dislodged from the

wall there was a sudden gush of blood. The dai removed the placenta and massaged the uterus again. The bleeding slowly settled down.

The Biomedical Voice: Retained placenta is thought by both doctors and dais to be a dangerous complication, although for different reasons. Dais believe that the placenta has toxic effects on the body. Manual removal of retained placenta is a commonly described procedure, and the dais often perform this technique very skilfully. However, this procedure can be dangerous, in that severe bleeding can occur at the time of removal, causing the patient to go into shock. Also, if strict sterile technique is not observed then there is a very real danger of puerperal sepsis. When puerperal sepsis does occur, one of the prominent symptoms is fever. Yet fever is often interpreted by dais as being related to a general condition of bodily overheat, and is treated by giving cooling foods.

Another aspect to this case is the woman's extreme shyness - she refuses to raise her petticoat during the delivery. Several dais told me that this does happen, and that quite often the actual birth of the baby's head is not

observed by even the dai herself.

Case Study 9: Meera, Tehri-Garhwal

Meera was a woman from Tehri Garhwal. The case was described to me by the nurse who was involved. I did not interview the dai, and so I do not have details about the dai's assessment and treatment.

Meera was a 23 year old woman from a small village in a remote part of Tehri Garhwal. She had one young son aged four, and was expecting her second child. During the last trimester of her pregnancy she had two episodes of blood spotting, which she did not mention to anyone. Late one evening, about a week before her due date, she developed sudden, painless vaginal bleeding. Her mother-in-law called the dai immediately, and took Meera to a room which had been prepared for the birth. The dai found that Meera was bleeding significantly, yet there were no labour pains. When the bleeding did not stop, the dai decided to call the pundit from a neighbouring village, who was known for his abilities to call the devi. The pundit arrived, and for a period of eight hours various rituals were performed. Still

the bleeding did not abate. The dai then decided that Meera should be sent to a hospital, and discussed the situation with family members. Meera's father-in-law was concerned about the difficulties and expense of the journey. However, eventually the family agreed, respecting the dai's assessment of the situation. Meera was carried on a cot from the village up to the road by four men from the village. From here she was carried to the clinic of the NGO where the NGO nurse saw her. The NGO nurse realized that Meera had lost a great deal of blood. She started an IV of dextrose and normal saline and arranged for one of the NGO vehicles to take Meera to the nearest midsize town. Both the dai and the nurse accompanied Meera, her mother-in-law and Meera's father-in-law. At the small government hospital in the first town, sixty kilometres from the village, no doctor was available because a doctor's strike was going on. The group had to go on to the next town, three hours away. Here they consulted a female gynecologist. She was shocked at Meera's condition, which by now was extremely poor. She reacted angrily to the group, blaming them all for their delay in bringing this woman to the hospital. For Meera's treatment, she recommended blood transfusion followed by a Caesarian section. Since there was no blood bank in this hospital,

she told them to go on to Dehra Dun, the regional referral centre, another hour's drive away. The family left the hospital, bewildered and upset. Meera's father-in-law had objections both to the blood transfusion and to the surgery. The nurse persuaded them to continue on to Dehra Dun, but before they could reach the hospital, Meera died. She had been bleeding for over 24 hours.

The Biomedical Voice: This case has been reconstructed from only one source, the verbal account of the nurse involved. I therefore have no details about the nature of the ritual treatment performed. The case has been included for its description of the problems of accessing the hospital health care system in Garhwal. There are great barriers facing the woman with an obstetrical complication: the physical difficulties of transport, economic problems, and then weaknesses of the hospital system itself. In this case study, there was no doctor available at the first referral hospital. At the second hospital, a full five hours journey from the village, the doctor treated them rudely and blamed them for Meera's condition. A blood transfusion was urgently needed yet blood was not available at this hospital. The idea of blood transfusion and Caesarian

section was frightening to the family. They never reached the Doon Hospital because Meera died just before they arrived. The hospital environment is a frightening place for Garhwali villagers. Most hospitals in Garhwal are crowded, dirty, and lack proper equipment and staff. Doctors often do not bother to examine and treat patients from the villages carefully. Their explanations of treatment are extremely brief. Villagers are aware of these problems, and fear a visit to the hospital.

Meera's biomedical diagnosis was placenta previa. The placenta was abnormally positioned in front of the cervix, and vaginal birth in this case is impossible. This condition usually manifests itself as painless bleeding during the third trimester or at the time of delivery. A related condition, abruptio placenta, may also cause bleeding during the last trimester of pregnancy.

Both the nurse and the dai were very much affected by this woman's death. When I interviewed the nurse about a month after this situation happened, she began to cry as she recounted Meera's story.

CHAPTER 5

KNOWLEDGE AND PRACTICES OF DAIS

In this chapter, I discuss indigenous concepts of anatomy, which then leads into an exploration of the actual practices of dais, both through descriptions of the practices and through the explanations that dais give for these practices. This grounded study of actual practice will then lead on to an exposition of the explanatory models which dais use to understand obstetrical complications. The practices described are the traditional practices of dais, except where otherwise indicated.

5.1 Concepts of Anatomy

Concepts about anatomy were studied by doing body mapping. Dais were given large poster-size pieces of paper and felt markers and asked to "show where the baby develops" in the body. From these drawings it appears that many of the dais who have not been participants in training do not

have a concept of the uterus as a separate organ. In their drawings the baby was seen as occupying the same space as the food in the abdomen. This finding is corroborated in a discussion with a key informant, who has participated in several training programmes.

D - "So... according to the village people if the pregnant woman eats more then the baby will be small..is that right?"

KE - "Yes. According to the village people if the mother eats more then the baby will be small because the baby and the food in the tummy occupy the same place. When the mother eats more then there will be less space for the baby to grow in the tummy."

Conception

It is thought in Garhwal that pregnancy is possible anytime during the menstrual cycle but particularly during the first half of the cycle. The process of conception is often spoken of using an agricultural analogy, with the woman's body seen as the earth, and the semen as seed.

Dai 1 - "The earth is important but the seed is equally important. Without the man we cannot have children."

Dai 2 - "Yes and besides the seed and the earth we must have the rain...the menstrual flow...this is why we are able to bear children."

The Placenta

Dais in Garhwal are particularly concerned about placental position. When the placenta is not delivered after the birth of the baby, the dais perceive this as a dangerous situation. The placenta is believed to move upwards, to occupy a place just under the mother's ribs or elsewhere in the abdomen. The placenta is thought to be poisonous, a belief that seems to be connected with beliefs about the polluting qualities of placental blood.

D - "Why would the woman die if the placenta moved up to some special place in the abdomen?"

Dai - "The placenta is the most poisonous thing ("jeher") in the woman. While the baby is in the tummy then it's fine but once the baby comes out and the placenta is still in the tummy then it is harmful."

D - "You mean when the placenta goes up into the abdomen?"

Dai - "Yes, then the woman is poisoned and the babybag's opening is closed."

5.2 Practices During Labour and Delivery

During labour the dai encourages the woman to walk around. When the pains become intense, the dai often

performs a body massage. This involves massaging the back, abdomen and legs with oil during labour. When the pains become regular and intense, the dai encourages the woman to bear down ("jor lagao"), to hasten the delivery. Bearing down frequently begins before the second stage of labour has begun, and may continue for hours. During the active second stage of labour, when the woman is bearing down, the dai goes behind the woman and presses down with considerable force on the fundus of the uterus. This is said to prevent the fetus from moving upwards. Sometimes the dai presses one knee into the small of the woman's back, which is said to prevent abnormal position of the baby as it moves down the birth canal. During labour many dais perform vaginal examinations to determine the progress of labour. These examinations are usually done with the bare hand and may be done repeatedly during the course of labour. Rupturing of the membranes is also occasionally done, using a fingernail, as a way of speeding up labour. Some dais give enemas as a way of stimulating labour. Massage of the vagina with oil is commonly done, to "open the path" for the baby. Some dais also perform massage of the perineum just before birth to help ease the passage of the head.

During the actual emergence of the head, several practices have been recounted and observed. Some dais do not even witness the emergence of the head. Some women are so shy that they refuse to raise their petticoats, even for the dai. Many dais interviewed mentioned that at times they would not be able to see the head emerge. As the head is about to be born some dais massage the perineum and head to ease the passage of the baby's head. As the head emerges, some dais support the perineum to prevent tearing. Some dais support the perineum with one of their feet, others support the perineum with the left hand, and others use their left hand covered by a cloth. A few dais use gloves; most do not. Many dais express their aversion to touching the blood associated with childbirth.

In Garhwal, traditionally dais would cut the umbilical cord with the sickle (dranthi) used to cut grass. The cord was cut before it was tied, resulting in bleeding. The thread used to cut the cord was often a piece of jute extracted from a mat on the floor of the room. Babies after birth were sometimes bathed in a dilute solution of cowdung, and either mud, ash, dung or stinging nettle was applied to the cord.

Care of the cord has been a major focus of dai training programmes, and significant changes in practice have occurred in recent years. The cord is now tied with boiled thread and the cord cut with a boiled razor blade. The umbilical stump is left dry. These changes in practices, reported by dais, have been confirmed by accounts of nurses working in villages and mothers who have recently delivered.

Many dais milk the cord blood away from the baby to avoid contamination of the baby's blood with placental blood. This is done to avoid the polluting effects of placental blood on the baby. Some dais cut the cord immediately after birth. Many dais, however, do not cut the cord until the placenta is delivered, because of the fear that the placenta will migrate from its normal place. After the placenta is delivered it must be carefully disposed of. Usually it is wrapped in a cloth and buried in the forest or in the fields. It should be safe from scavengers, because it is believed that if the placenta is eaten by animals then harm may come to the baby.

Practices during the postpartum period are directed

toward protecting the mother during a particularly vulnerable period. The heating effects of pregnancy suddenly are reversed and the woman is susceptible to cooling and chill. Beside her an angiti (stove) constantly burns. The angiti's fire has two functions: to protect the woman from cooling effects, and to keep away evil supernatural influences. If a woman in the vulnerable postpartum period becomes seriously ill and has to be moved to hospital, then sometimes the family will take the angiti with them. One obstetrician in Dehra Dun described how families accompanying an ill postpartum woman may bring the angiti with them, keeping it near the woman during transport.

The polluting effect of the birth process means that many types of activities will be prohibited for her. For most women postpartum, rest is advised, although the period of rest is variable. The woman is not permitted to cook or to touch water for a number of days after the birth. Usually the period in which she cannot cook food is 21 days. Following this there are purification rituals which must be performed before she is able to resume normal activities. Various rituals are performed to cleanse and purify the

postpartum woman. A pooja performed by the pundit on the 21st day after delivery allows the woman to re-enter normal society and her usual social roles. Cow's urine is sprinkled around the yard and near the room where the woman stays with her baby.

Diet in the postpartum period is also dependent on the baby's condition. The mother's diet during pregnancy is thought to affect the baby, and during the postpartum period her diet affects the quality of breastmilk, and thus the health of the baby. The first breastmilk, colostrum, is seldom given as it thought to be indigestible.

5.3 Practices Related to Obstetrical Complications

Retained Placenta

When the placenta does not deliver shortly after the baby's birth, the dai becomes worried. Some dais have explained that the danger is the toxic effect of the placenta on the woman. Other dais explain that after cutting of the cord, the placenta may migrate to different parts of the abdomen. Many traditional dais in Garhwal do

not have the concept of the uterus as a separate organ. Perhaps because of this concept of anatomy, there is a concern that the placenta can leave its normal position and migrate.

When the placenta is retained, dais usually administer heating foods as an initial therapeutic measure. Then, hot fomentation on the abdomen and an oil massage are done, and a cloth may be tightly tied around the upper part of the abdomen to prevent the placenta from moving upwards. Following this, if the placenta has still not come out, the dai may squat behind the woman and physically shake her up and down in an attempt to dislodge the placenta. The final measure performed is the manual removal of the placenta. Not all dais do this and here again the system of referral to the more experienced dais in an area may be used. Many dais have given me a detailed description of how they perform a manual removal of the placenta. Sending the patient to hospital for removal of the placenta is not often done.

Malpresentation

Dais examine women clinically to see whether the baby is not in the proper position. The experienced dais are very skilled at the diagnosis of malpresentation. When the dais detect a malpresentation they often attempt to correct this by physical manipulation. The dai tells the woman that the baby is not in the right position and must be brought into proper alignment. The dai applies oil to the woman's abdomen and then performs a massage. Sometimes these massage treatments go on for several sessions before the dai is satisfied that the position has become favourable for delivery. From my observations of these treatments, I think that some of the treatments do not result in any significant alteration in the baby's position. However, there are also times when the dai does attempt a major re-positioning of the fetus, such as the external version of a breech fetus into a vertex. The detailed descriptions of how the delivery is done has convinced me that at least some dais do perform both versions of the breech fetus as well as complex deliveries of babies with malpresentations.

Postpartum Hemorrhage

In cases of excess bleeding, some dais suggest flour and clarified butter (Ghee) porridge, to be given as a fomentation on the abdomen. Many dais do not treat this at all, however, as they do not perceive it as being a problem. Rather, it is seen as a cleansing process in which the dirty blood associated with childbirth leaves the body. Ritual treatments are also used if the woman suffering from postpartum hemorrhage becomes seriously ill.

Obstructed Labour

For obstructed labour, dais may tie a cloth tightly above the uterine fundus. Tea with ghee is often given. Other dais stress the importance of removing all knots in the labouring woman's clothing to prevent obstruction in labour. Locks on windows and doors may be opened. Ritual treatments are commonly used in cases of obstructed labour, including sacrifice of animals. Many unexpected, sudden or shocking complications during delivery are treated by ritual means.

Uterine Prolapse

In a case of frank uterine prolapse, one dai described to me a manual reduction of the uterus which she performed to return the uterus to its proper position. Other dais keep their feet pressed against the perineum right after delivery of the baby to prevent this problem.

Prevention of Pregnancy

Dais were asked about traditional methods of contraception and also abortion. All denied performing abortions and emphatically stated that this is wrong. One dai did tell this about a way to prevent pregnancy:

Dai - "If somebody doesn't want to get pregnant, then after the menstrual period I can hold the tummy and reverse the position of the babybag..then no baby will be born...But during this a lot of pain occurs. Then later I have to bring it into the right position again."

It was not clear if she actually performs this or not.

Neonate

The neonate, like the postpartum woman is vulnerable in the period immediately following birth because of the sudden cooling effect of the childbirth itself. Babies are carefully observed for problems with the digestive process. The first breastmilk is thought to be very difficult to digest and is seldom given, even by dais who have participated in training. If digestive problems are suspected then fomentation is usually given. Examination of the baby's stool can show whether the baby is digesting properly or not - loose stool or regurgitation is a sign that he is not digesting well.

5.4 Herbal Treatments

Certain dais have expertise in a variety of herbal treatments. They make these herbal preparations themselves, from herbs collected in the jungle nearby. Often there is a complex process of drying and processing which must be done before the preparation can be used therapeutically. There is a herbal preparation for "dubba rog", a folk illness of the newborn, which is said to be made from 52 different

jungle herbs. If a mother has had one baby which has expired due to some form of "dubba rog", then certain dais have a special herbal preparation which they give to prevent the occurrence of this problem in subsequent pregnancies.

5.5 Cosmopolitan Medical Treatments

Certain practices have been adopted by dais from cosmopolitan medical practice and may carry considerable symbolic weight. Many cosmopolitan drugs are widely available without prescription. Cosmopolitan medical treatment, often demanded by the family, has become part of the therapeutic armamentarium of the dais. Unfortunately some of the drugs used in such treatment have significant side-effects.

Injections

Syntocinon injections are used by some dais in Garhwal, and knowledge about the availability of this injection is widespread. All pharmacists carry it, even in remote areas of Garhwal. Syntocinon has a powerful effect on uterine contractions. It is indicated in cases where the

membranes have ruptured but labour is not progressing, sometimes in cases of poorly developed labour pains and in those cases when labour needs to be induced. However, it is supposed to be given in an intravenous infusion, with carefully regulated dosage. Intramuscular injection of syntocinon can result in very high blood levels of the hormone, which may cause uterine contractions which can harm the fetus or even cause uterine rupture. Despite these contraindications, the intramuscular injection is used widely in India.

In Garhwal, the injection is seen as a powerful medicine to give the woman "strength" in labour, and to speed up the delivery process. Because it is strongly associated with the cosmopolitan system of medicine it carries an aura of power and prestige with it. Those practitioners who administer syntocinon injections are respected for their specialized knowledge and are called in by families and by other practitioners who may not be using it. Among dais I interviewed, the more experienced dais all admitted to using syntocinon. The less experienced dais did not use it but would call in someone to give it when they felt that the woman's labour needed to be speeded up. They

would call in other dais, government or NGO nurses, or even sometimes pharmacists. The injections are usually administered with little attention to sterile technique or even basic hygiene. One nurse reported an injection given through a woman's saree, without even exposing the skin.

Medical Instruments

Medical equipment of various types is used by some dais. One of the SBMA dais still has the pair of artery forceps which had been given to her during a government dai training programme many years ago. The artery forceps are used to clamp the umbilical cord before cutting. However, over the years the "art force" has assumed new meanings in this dai's practice. The dai told me that the "art force" clamps the cord tightly and prevent mixing of the baby's and mother's blood. The blood flowing from the placenta is considered by many dais to be dangerous to the baby (because of the toxic and polluting qualities of the placenta). The possession of a pair of "art force" enhances this dai's prestige. In this case, a piece of medical equipment has taken on new meanings.

Enema cans are used by some dais to give enemas in cases of desultory labour. Surgical scissors are owned by several dais who took government dai training. These are used to cut the cord, after boiling. Gloves are an item which are used by the SBMA dais, supplied through the clinics, and are requested by many dais who take the training programme. The process of childbirth is seen as highly polluting, and many dais express some aversion to the dirty business of handling the baby and placenta with bare hands. With the rapid spread of HIV/AIDS in India, pairs of reusable (boilable) latex gloves would be a useful form of medical equipment for dais.

Medicines

The SBMA dais all dispense iron/folic acid tablets, paracetamol (acetaminophen) and calcium tablets. Many would like more training and this is presently being planned. Some dais keep some cosmopolitan medicines at home and dispense them - Buscopan for abdominal pain and Imodium for diarrhea are commonly used. Glucose powder (Glucon-D) is

often kept by dais. This, when reconstituted, is used for many "heating" conditions as both glucose liquid and IV fluid are classified as "cooling".

Diagnostic Tests

Many dais are aware of some basic diagnostic tests. The SBMA dais often suggest to patients that they have their "blood tested". While only hemoglobin testing is locally available, the dais attribute much more to the blood test than a simple determination of blood level. Blood testing becomes a part of a complex system of belief about the quality and purity of blood, and blood as a cause of illness.

Xray is also widely known as a diagnostic test, and many people, including dais, believe that the Xray is in itself a therapeutic procedure.

Another diagnostic test which many dais are aware of is the ultrasound test for prenatal sex determination. In Dehra Dun, private practitioners advertise ultrasound examinations for prenatal sex determination. Usually, the

diagnosis of a female fetus leads to abortion of the fetus. This procedure has been available to the public in India for about 8 years. While women health activists have launched a strong campaign against this practice, private practitioners who offer the test flourish. In remote Garhwal, couples desperate for a male child make the long (and expensive) trip to Dehra Dun to have the diagnostic test done. Three of the dais that I interviewed spontaneously mentioned knowing about this test, and one had advised it to a couple in her village who did not wish to bear any more girls.

5.6 Rituals and Taboos

In Garhwal, a woman must observe certain behavioral rules during pregnancy to protect herself and her unborn child. She should avoid going near the cremation grounds or near a crossroads, where ghosts (bhut) are likely to be found. She must avoid seeing an eclipse - this is said to cause birth deformities in the baby. Pregnant women in Garhwal must avoid ritual pollution and polluting persons.

During delivery, the confinement room is usually shuttered and closed to protect mother and baby from demons,

spirits or ghosts. Protection against supernatural forces is sought by carrying a piece of iron or placing a knife near the door of the confinement room.

The common ritual used in Garhwal for obstructed labour is a transference ritual. In this, the practitioner manually rotates grains of rice around the head of the labouring woman and then throws the grains into the fire. The evil spirit believed to be causing the problem is symbolically transferred to the rice grains and then to the fire. Rituals involving animal sacrifice are also commonly done during an obstetrical complication in Garhwal, as has been described in the case studies.

Babies in Garhwal are thought to be susceptible to "nazar", or evil eye, caused by the jealousy of others, particularly childless women. A dark spot of "kajal" is placed somewhere on the baby's face to make the child less attractive and therefore less susceptible to jealous gazes. Babies also often wear protective amulets. "Nazar" can cause many illnesses in children and may be responsible for a mother's milk drying up. Babies who are born after a very difficult birth or at an inauspicious time are often given

strange or peculiar names, to indicate to the malign spirits that the parents do not value the child. This protects the child against both evil spirits and against evil eye.

In Garhwal, the dais may also be spirit mediums, who can attract a powerful and benevolent spirit such as a devi. The devi is thought to have powers over many malign spirits which attack women in the vulnerable postpartum period.

Inauspicious planetary configurations at the time of childbirth can affect the life and health of the baby and its parents. In Garhwal, the fetus is sometimes seen as a source of danger to the parents. When a baby is born in the astrological configuration of Mul, he or she can be dangerous to the father. Simply seeing the child may cause that parent's death.

CHAPTER 6

THE HUMERAL EXPLANATORY MODEL

6.1 The Qualities of Food

Beliefs about the intrinsic heating and cooling properties of food and the effect of heat on health underlie much of the dais' concepts and practice about a safe pregnancy. Pregnancy is a condition of heat, and heating foods should be avoided during this time. The dangers of eating hot foods is pregnancy are very real to the dais. In Gairsain, we conducted an exercise we asked dais the question: What is the most dangerous thing that can happen to a women during pregnancy? The dais responded to this question not by identifying specific dangerous clinical conditions, but rather by identifying certain risk behaviours that would lead to problems. They thought that the most dangerous risk behaviour would be for the pregnant woman to eat peanuts during the pregnancy. Peanuts are thought to be extremely heating.

"Hot" foods are typically cooked by high heat (e.g. frying), high-calorie, burning to the mouth or brightly coloured. "Cool" foods are raw or cooked at low temperature,

lower calorie, soothing and are often green or white in colour (Anderson 1987). Specific classification of foods into hot and cold is actually quite variable. Another exercise which we conducted in several different parts of Garhwal was free listing of foods into hot and cold categories. Long lists of prohibited foods were generated by dais during the listing exercise. The list of hot foods from one site (Gairsain) included: coconut, peanuts, harsha, arbi, jaggery, cumin, cloves, nutmeg, peepul, pepper, ghee, roti, corn, bengal gram, uhrhar dal, toor dal, ghet dal (types of lentils), eggplant, egg, meat, fish, lochi, mundwa (millet), tea, halwa, poori, dalia, jackfruit, radish, green vegetable. Cold foods listed by the dais were: sugar, rice, urhad dal, moong dal (types of lentils), kidney beans, soybeans, banana, apple, cucumber, rai (one type of green vegetable), lemon, yoghurt, butter, oil, arsha, potato, cauliflower, carrot, turnip, milk, cabbage, papaya, plum, mango and peaches. There was a certain variability among the classifications in different parts of Garhwal. Certain foods were always listed in one particular category (e.g. peanuts, meat, eggs and "goth" lentil as being "hot"; rice and curd as being "cold"). However, there was disagreement on the classification of some other foods. In Anjanisain,

for example, mango, papaya, banana, oil, rai (a green vegetable), and kidney beans were classified as hot rather than cold. Harsha, a type of sweet prepared by cooking with jaggery (unrefined sugar) is considered very hot. Ambiguous foods are most often foods which possess some characteristics of both categories, such as fruits which are brightly coloured yet are juicy and cool to taste.

While most dietary taboos during pregnancy had to do with the heating properties of the foods, certain other dietary taboos were present also. Eating of green vegetables by pregnant women was thought by many dais to cause worms ("jonk") in the neonate, and was thus prohibited. Yet eating of green vegetables has been strongly promoted in dai training programmes, and some dais said that they had begun to advise women to eat green vegetables.

6.2 Maternal Diet and "Rog"

Traditional dietary advice to pregnant women thus usually involves telling the woman to avoid heating foods

and other foods that will produce illness in the newborn. If a pregnant woman does eat hot foods in pregnancy the greatest danger is to the neonate rather than to the woman herself. Various forms of "rog" (a general term meaning "sickness") in the newborn can occur when the woman has exposed the baby in utero to heating foods. The classification of "rog" is complex and is based partially on the type of prohibited foods eaten during pregnancy as well as on the characteristics of the newborn's illness. In the following focus group discussion, dais explore the concept of "rog":

D - "What do you think will cause "rog"?"

Dai 1 - "Certain foods will cause sickness such as banana, brinjal, arbi (a root vegetable), coconut, peanuts and Jalabi (a syrupy Indian sweet). We advise not to eat these things because they cause disease. They should not be given to mother or the child to eat. They are unhealthy things."

D - "Does "rog" occur when the woman eats something which she should not eat?"

Dai 2 - "Yes, it happens by eating. It happens by eating the wrong food. In our village we advise not to eat meat and drink milk during pregnancy. If somebody uses these two things together then "Pandu rog" occurs. In the (mother's) tummy if the water fills (the baby), then later it's known as "Pandu rog". So meat and milk should not be given to the pregnant woman. Her baby might get Pandu rog and the baby can die too."

Dais identified a number of different types of rog,

including nara rog, gum rog, til rog and dubba rog. In "nara rog", the baby's body is bloated and there are abnormalities in the feet and swelling of the upper body. In "gum rog", the baby's stomach is very bloated and the child is weak. In "til rog", the baby has furuncles all over his body.

"Dubba rog" is the form of rog most often discussed by dais. The symptoms are most commonly described are blue colour to the skin, poor feeding, bloated abdomen, and constipation. The dais diagnose this condition by observing the baby's general condition, and checking the quality of the urine and stool. The treatment of "dubba rog" usually involves administering a herbal preparation to the mother. Certain healers have expertise in the treatment of this condition. One expert dai prepares a remedy for "dubba rog" which is said to be made from 52 herbs from the jungle. The dai describes preparation of the mixture in this way:

"I go to the jungle to collect the 52 herbs ...sometimes I must travel a long way....Then I return home and I mix in it Kali maisur (black lentil). That comes from Deoprayag. Then the mixture should be crushed and ground.... it should be ground before the sun rises. No fly should sit on it or else it will be spoiled. This is a good medicine... it is good for blood diseases, dubba rog, nara rog and so many other problems. You must mix this with clean water and give it. Chilies and spices should not be eaten with it."

The herbal remedy must be carefully prepared. If even one of the herbs is missing from the mixture then the effect will be diluted. The dai notes that it is getting very difficult to prepare the mixture properly because the component herbs are becoming scarce with diminishing forest cover. Besides the dai, some vaidyas know remedies for "dubba rog", which they prepare from jungle herbs. Other dais treat "dubba rog" by bathing the baby in a liquid preparation of a special type of grass.

Dubba rog in the newborn can be prevented by giving the pregnant woman a type of medicine made from leaves from the neem tree. This has a cleansing effect on the mother's blood. This treatment is often used when a woman has previously given birth to a baby with dubba rog, in order to prevent the condition in the second child. A treatment with a similar preventive effect is made from a plant called Kasturva, which grows on the slopes of Surkanda Devi, a sacred hill in Garhwal.

6.3 Fomentation

When mothers or babies suffer from either excessive heat or cold, balance can be restored either by offering foods with an opposite effect or by the physical application of heat or cold, for example, by using fomentation. Specific symptoms point to an imbalance of hot or cold. Thick mucus is related to the production of excess phlegm (kapha) in the system, a condition associated with excess cooling of the body. The temperature of the water used to bathe the baby will also depend on whether the baby is suffering from overheat or from cooling. Fomentation is done either with a cloth dipped in cold water or with a hot stone wrapped in a cloth. The cloth is usually applied to the patient's abdomen. Newborns are thought to be susceptible to sudden cooling, and must be protected by keeping a burning coal near the infant.

When a problem with a newborn occurs, hot/cold theories of illness causation are often invoked to explain the illness. Sometimes, the dai and the family members interpret symptoms differently. In this excerpt, the dai and the parturient woman's family use different explanatory

models which lead to different treatment strategies for a newborn who is ill. The dai recounts:

"The baby was a heavy one. Even the cord was thick. Then I cleaned the baby and cut the cord. Then the baby started making some sounds. Water started coming out from his mouth. Then the grandmother of the baby said that due to cold the water is coming out from his mouth. But I said to her that this water is a good thing but what is this yellow stuff which is coming out? Now I wanted to question them straight out but everybody would have felt bad. Then I asked the woman in private that if she ate burnt omelette in the last months of pregnancy? She said,"Yes Aunt I ate." Then I told her that those omelets had hot effect on the baby that is why his nose and mouth is filled with gas. The baby continued to make the Hain-Hain sound. Then I told the woman that I will like to leave now and her mother was with her and she knew how to take care of the baby. Her mother started to do the hot fomentation on the baby's body. She put him to sleep and sometime later he died... she didn't know when the baby died. When the baby was suffering from heat there was no need to give him fomentation! Because of the heat application the baby became more hot and he couldn't digest more heat and that is why he died."

6.4 Digestion

Samkya philosophy, underlying the fundamental postulates of Ayurveda, proposes that five elements are the constituents of all life, which make up the three humours and seven physical components of the body. During the process of digestion, food is transformed by the fires of the body into increasingly refined elements, or dhatus: food juice, blood, flesh, fat, bone, marrow, and semen. Semen,

the most refined element of the body, is a source of vital energy for the body (Obeyesekere 1977).

Digestion is thus a very different concept than the concept held in cosmopolitan medicine. Foods are classified according to their perceived digestibility. The heating qualities of food also affect its digestibility, with hot foods thought to be more difficult to digest. The first breastmilk, colostrum, is thought to be highly indigestible and is not given to newborns:

D - "Do you think that the first breastmilk should be fed to the baby?"

Dai - "The first breast milk should not be given....that I know well. One woman gave her first milk to the baby then a ball-like thing was formed in baby's tummy. The baby became very sick. I always advise not to feed the first milk...it is too thick."

The mother's diet is thought to affect the quality of the breastmilk. Many illnesses in the baby are thought to be due to inappropriate diet of the mother:

Dai - "If the mother eats such food then when the baby drinks mother's milk the disease goes in the baby. If the woman's milk is thick then also it becomes harmful to the baby. Thin milk is good for the baby because it can be digested easily."

Women often relate problems in digestion to problems with what they call "liver". This English word has been picked up from cosmopolitan practitioners and has acquired a meaning within ethnomedical concepts of digestion. In classical Ayurvedic notions of digestion, the "gastric fire" is responsible for the process of digestion, not the liver. However, in current usage, many digestive disorders are thought to be caused by dysfunction of the liver.

CHAPTER 7

THE SUPERNATURAL EXPLANATORY MODEL

7.1 Types of Supernatural Influences

Many supernatural forces are believed to affect people's lives and health. These forces can be benevolent and helpful, such as most devi/devta, or malign, such as the bhut or pret. When key informant RD was asked what is the devta, she replied,

"The devta is a form of god (Bhagwan) because he moves by the wind and that is how he comes and goes. Nobody knows from where he comes and goes. He suddenly enters through the wind and the person in whom he enters also doesn't know.... We believe that the god comes in the form of devta. We make him dance by beating drums, metal dishes and bigger drums and worship him well."

The devta enters a person, who then suddenly begins to act in a peculiar way. The individual possessed by a devta often tears at his or her hair and clothes, leaps up and begins to dance wildly. Once this dance begins, anything that the individual says is believed to be the voice of the devta himself. The devi or devta may demand certain offerings - sometimes a goat, food offerings or the

Hawan ritual (offerings to the fire). Kali Ma is a particularly powerful devi, and may demand the sacrifice of many animals. Other items offered to the devta or devi include wood, barley, sesame seeds and water from the Ganga. While Kali Ma is a goddess recognized widely throughout India, other devi which possess people in Garhwal are specific to this area. The same key informant explains,

"In Garhwal, our devis are twelve sisters and they are dancing in twelve places. When one of them will go to other village then they meet and hug each other. When they meet they hug each other and cry and say that they are sisters. Later on they all dance at their dancing place."

These devis are worshipped at specific temples in Garhwal, including the temples of Dhari devi, Surkanda Devi, Chandrabadni Devi, Bishnu Devi, Raja Rajeshwari, Jagdamba Mata, Kunjapuri, Mansa Devi and Chandi devi.

Many other supernatural forces can affect individuals. Besides devta/devi possession, the soul of the dead can affect people. The soul of the dead is called a "hantya" or a "bhut" (ghost). When a young daughter-in-law dies then she becomes a hantya but if a young unmarried girl dies then she becomes a devi (goddess). Only young married women (particularly childless women) may become a "hantya" or "bhut". Women who die at an appropriate age do not return

in any supernatural way to the place where they once lived. Men who die young may also become bhut, and return to the place where they lived as a supernatural force. It is believed that they have died an untimely death, and have left this earth unfulfilled.

If a young woman has died and become a hantya or bhut, then she may return to the house where she lived before death. Here she can create great trouble for the family by demanding that which was hers during her lifetime. Special pooja must be arranged for her to pacify her and prevent trouble from coming to the house. Sometimes after the death of a young married woman, special pooja can be done to prevent her soul from being transformed into a bhut.

There are many kinds of devi/devta in Garhwal which may affect people. Key informants described Kali Ma, Bhairon, Nag Doodh, Kharani Narsingh and Kedhari Narsingh. Then there are the twelve devis of Garhwal, who are twelve sisters. Two of the most powerful and frightening of the devtas are Khetrapal and Gurilla. Besides the devi/devta there are also many atma (soul spirits) too. Sometimes the

atma also protect the person, because they are able to chase away a bhut which may be troubling someone.

7.2 Becoming a Spirit Medium

The devta will enter the body of only certain people. As key informant RD explains it, the devta searches for those who are "clean" (saf), meaning ritually pure. Only onto those will the devta come. RD herself often has the devta come to her. She sees this as a positive thing which she attributes to having kept herself very "clean" over the years. She mentions the strict observation of pollution taboos as one way of maintaining her ritual purity. She is herself a Brahmin, and she never eats food unless she is certain it has been cooked by a high caste individual. She describes the encounter with devi possession in this way:

"This devi came on me first and at that time I was 20 years old. Then after 20 years of age when I was having children the devi stopped coming on me. But now again she came on me. With the blessing of Bhagwan (God) I remained clean so she came onto me. Now she is coming onto me for the last 4-5 years."

Although RD is a Brahmin, some devi/devta may come onto other castes as well, including onto the Harijans. According to RD, when the devi/devta descends, the medium's body becomes rigid and stiff, and even twenty-five people cannot lift the person. When drums or a metal dish are beaten, then the person will begin to dance. Then sometimes the devta will demand something, like lentils, rice or sesame seeds. The devta stays on a person for about an hour, usually. He comes on his own and goes away on his own. Observers can usually tell which devi or devta has possessed the individual by the person's behaviour. According to RD:

"When the devi comes and goes then she screams. When Narsingh comes then he says "Hut-Hut". And if the King of Snakes come then the fist is tightly clenched. Then if the rice and lentil is offered then the fist is opened. This is how we know who has come..."

After the devi/devta leaves, the person is not usually harmed. However, if the proper worship has not been done, then misfortune may befall the individual. Illnesses, thefts or economic losses may occur. According to RD, the devta's pronouncements while inside an individual's body are always true, provided the devta is indeed a real one. If he is not real then he might speak false things. If someone's inner soul is not pure then the real Devta may not come to

him.

The bhut usually has an evil influence, while devi/devta are often benevolent and may enable the medium to gain healing powers. When an individual is affected by a bhut, which may cause illness or abnormal behaviour. People affected by bhut lose their appetite, and some develop diarrhea and vomiting. Intense thirst, manifested by repeated requests for water, are signs of bhut. The bhut may be driven out by another person onto whom a devi/devta has come.

Getting rid of a bhut is an important ritual activity requiring special practitioners. RD mentions that particular individuals in the village may know certain rituals to make a bhut leave an affected person's body. Such wise individuals may take five nails and place them in five places on the roof of one's house, along with vermilion, lentil and rice. These prevent the bhut from entering the house. If an individual is susceptible to the influences of the bhut then a cotton thread with three knots is placed around that person's neck. This keeps away the evil influence of the bhut.

People seek the help of the devi/devta at times of crisis. Strange or unusual behaviour in animals or people is often attributed to be due to the devta. Misfortune such as a house fire, the loss of a precious item or theft of valuable goods may also be considered the work of malign spirits, which require the intercession of a devi/devta. Snakebite is often treated by calling on the devi/devta, since the snake is itself believed to be a form of the devta Bhairon. Illnesses in both animals and humans may be attributed to the devta, particularly illnesses which have sudden, severe or unusual physical manifestations. Sudden fits, jerking of the body, inability to breathe, and peculiar behaviour are symptoms commonly associated with devi/devta possession.

7.3 Possession During Pregnancy

Pregnant women affected by supernatural forces may show a variety of symptoms. RD, when asked how a pregnant woman might be affected, said that miscarriage might occur as a result of possession by a malign spirit. Other possible symptoms included the development of a foul smelling discharge, bodily swelling, and paleness.

RD describes another woman who gave birth to six tiny babies. None survived. This occurrence was interpreted to be the result of displeasure of a devta. A ritual was done in which a four horned sheep was sacrificed to the devta. After this, everything became alright. RD says that now, with the devta's blessing, this woman has given birth to two normal sons.

In a focus group discussion from Jaunpur, dais mentioned a powerful form of devi known as Matrik-Masand. Matrik lives on the top of the mountain and formed by a living person and Masand is formed by the body of a dead person. A woman affected by Matrik-Masand may remain childless. When a pregnant woman is affected by Matrik-Masand she may have strange dreams, such as a dream of eating the placenta and her baby. If a pregnant woman becomes affected by Matrik-Masand, various problems may happen, including early abortion of the fetus. To protect the woman affected by Matrik-Masand a special pooja must be arranged. In this ceremony, the Matrik-Masand is offered "shringar" items, which are women's makeup items such as lipstick and bindi. Childless women also make offerings to

Matrik-Masand, and they receive a necklace to wear at all times from the priest who has conducted the ritual.

Delayed labour or poor progression of labour are explained by one dai from Gairsain in this way:

"If the woman doesn't have labour pains on time then we will try to chase the evil spirits by worship with jaggery (unrefined sugar) and flour. Unmarried girls are not allowed to come at delivery place because they are "closed" which might make the pregnant woman close too and create a lot of problems in the delivery. If one woman in the family delivers early then the other pregnant woman in the same family will have a early delivery too."

Malpresentations of the fetus (breech, transverse, etc) are often explained using a supernatural explanatory model:

"The babies who are not straight in the tummy also allow a bhut to sit in the tummy. They might have two placentas. It is a strange placenta because of which one has to give offerings of a four horned sheep, as well as all beds, quilts, mattresses and clothes."

Sudden, unexpected or shocking events during pregnancy or birth are often attributed to supernatural causes. An NGO nurse describes a situation when a woman in a village in Tehri-Garhwal developed a prolapsed cord during

labour. The dai had called the village pundit, who had brought a goat and was walking the goat around and around the labouring woman. He was planning to sacrifice this goat and offer a pooja (worship) so that the woman would recover. The NGO nurse told the family that the woman's condition was serious and that she should be immediately taken to hospital. After some discussion the family finally agreed. They took her to Tehri. However the doctor there said he could not manage the case. They took her to a private hospital in Chamba, where the dead baby was removed piece by piece. The mother was saved, although she was very weak.

To protect themselves against malign spirits, pregnant women carry a knife hidden in their clothing when they go outside. Wearing a black or white shawl is also protective.

7.4 Illnesses in Children: Supernatural Causes

In a focus group discussion in Gairsain about illnesses in children, one dai described a ritual performed for her own young son who had developed sudden severe abdominal pain, diarrhea and vomiting. She had taken him to

the pundit, who agreed to perform a ritual to get rid of the bhut affecting the child. The pundit took banana, orange, apple, coconut, incense, flowers and barley, and then those items were burnt to ashes in the fire. Then he said, "Take these ashes and put some on the forehead of your child. All bhuts will run away. Whenever there is a bhut on the child put this ash on the forehead of the child and he will become alright."

If children have high fever or severe stomachache, or cry a lot, then people think that "nazar lug gaya"...the evil eye has come upon the child. Mothers will take a shoe and circle it around the baby (an unclean object, to frighten off the evil spirits). The pundit may be called who would do some mantra. Black soot from the wood stove is applied on the body of the child and black thread is tied around her or his neck or waist. This will save the child from Nazar (the evil eye).

Tetanus is often interpreted to be due to possession by a bhut. Epileptic fits in both adults and children are similarly thought to be caused by bhut. People make the epileptic smell dirty old shoes - these are polluted things

which can make the bhut leave the body. The pundit also recites special mantras to get rid of the bhut.

7.5 Sorcery

When someone bears a grudge against another, he or she may call upon a devta to bring trouble upon his enemy. RD describes a case near her village, where a man who was angered by an illicit relationship that his sister's husband had been involved in. He performed a ritual for Khetrapal, a dangerous devta, requesting him to bring down trouble upon his sister's husband's family. Shortly thereafter, many people of the woman's extended family began to face trouble. Animals were eaten by a panther, houses were damaged, and RD herself became very ill. Only when the man who had caused the trouble agreed to perform another ritual to the devta did the troubles end.

7.6 The Devta Descends: Notes from the Field

Two of the NGO health workers and I had decided to interview a midwife in a village about 2 Km from one of the NGO clinics. Long before we reached the village we could

hear the sound of drums. I was told that this is a special day in the village, in which particular ceremonies are done so that the devta will come. This village has a pujari (priest) who is a well-known spirit medium in the area, and villagers from miles around also attend these ceremonies when they take place in the village.

When we reached the village, we made our way to the temple, which occupies a prominent place in the village. We found a place to sit amidst a line of women sitting on a ridge above the temple. Three men were standing in the courtyard of the temple, beating dols (large drums). They are Harijans (scheduled caste people) whose traditional occupation is to play these drums at festivals and religious ceremonies. The pujari (temple priest), wearing a yellow cotton dhoti, was dancing in the courtyard in front of the temple. His movements were wild and frenzied. About ten women were also dancing with him. The women had unbound their hair and were dancing with abandon - very different from the usual decorous behaviour of Garhwali women. Suddenly there was a movement near where I was sitting. A young girl of about 15, who had been sitting silently observing the ceremonies, leaped up and began to run towards

the temple, tearing the ribbon from her hair as she ran. Then she too began to dance with a frenzied air. The women sitting near me whispered that sometimes these women could go on dancing all night without feeling tired.

7.7 Planetary Influences

Ideas about misfortune, including serious illness, are sometimes explained by relating the misfortune to sins committed by individuals or families. The bad effects of such sins can persist beyond the life of the individual who has committed these sins. To neutralize the bad effects of these sins certain ritual activities can be done, such as fasting or ritual offerings. A dai from Tehri-Garhwal was describing a family which had faced repeated severe illnesses:

"Yesterday when we went to a village then in that one house the people were saying that their constellation was spoiled. Sani and Rahu were stuck to them. Then someone suggested that they should keep 21 fasts for the Sani then the constellation will become calm. Someone said probably you killed a snake somewhere that is why you got the sin of that. For this you should make a copper snake and offer in the temple of Shanmugnathan and then come to the village and offer the worship. Shanmugnathan temple is about 100 - 150 km. from this place. And also they were supposed to read 17 chapters. (of a holy book) Beside this a girl died in that house and her sin is also persisting. We have to make her

dance too because she wants to dance. When her desire will be fulfilled then sin wouldn't remain. To calm down the constellation, certain things should be given in donation such as black lentil, the dead person's statue made up of flour and rice, some money etc. The whole stuff should be equivalent to a person's weight. It should be weighed on a balance. Then everything will become alright."

The offering is given to the ritual practitioner, usually the pundit. The person who wants to "calm the constellation" must make an offering which is equivalent in weight to the person for whom the ritual is being performed. This seems to be an almost metaphorical way of "righting the balance" of past sins or breaking of taboos.

Another dai was talking about a serious obstetrical complication in which both a government nurse and the dai were attending. The woman was eventually transferred to hospital on the recommendation of the dai, despite the nurse's assurances that they could safely wait:

"Then when she was taken to the hospital, the doctors said that in order to save her they should give blood. Then the blood was transfused to her and the baby was taken out. And I was going to do the same thing as that sister was saying...wait and wait. But to wait then she would have died and all were going to cry. Now her son is five years old and that woman has two other sons. So one should not think that if she is older then everything will become alright. All the time it's not the same. Even the planets are different. Sometimes the planets are alright and sometimes they are not."

The constellations under which the baby is born exert a lifelong effect on the baby's fortunes. Particular constellations are considered inauspicious, sometimes for the health of the child and sometimes for the health of the child's family. One dai expresses it this way:

"If the baby is born in the night of Amavasya then people think that the baby is born under a sharp and intense constellation. And if he is to marry then the girl should also be born on Amavasya night. If the boy is married to the ordinary girl then the girl will die. So it is with the Mangil girl (born in Mangal planet). If she marries an ordinary boy then she will be the cause of death of her husband and other family members. But if two persons of the sharp planets marry with each other then there wouldn't be any problem."

Children born in the night of Amavasya may be thought to have supernatural powers, and may be able to cast an evil eye ("nazar") on others.

A particular pundit skilled in astrology makes the horoscope for each baby born, usually eleven days after the baby's birth at the time of the baby's naming ceremony. He asks the dai to tell him details about the baby's birth:

"The priest astrologer will ask at what time the baby was born and in which direction were the feet and where

was the head? How many people were present at the time of birth and where they were sitting? They ask all questions from the dai about how the baby was born. Then they make the horoscope."

The two constellations identified as being particularly dangerous include the night of Amavasya (the darkest night of the month, when there is no moon) and during the Mul constellation. This constellation occurs every month, but a particularly dangerous alignment of the planets occurs in April or May each year. Babies born at this time are considered to pose a danger to their families. According to several key informants such babies may not be kept by the families but are given away to a relative to be brought up. These children pose a danger which may cause the untimely death of the father, either from illness or accident. This danger can affect the father even before the actual birth of the inauspicious child. A key informant says:

"Now my daughter-in-law's aunt had three daughters in her tummy when her husband passed away. So some babies are like that and kill their father before they are born. They don't kill their mothers because they live in their mother's tummy."

Sometimes the ritual of "tooladan" is done to

correct the distortion of the planetary influences at the time of the baby's birth, which can cause ill-health in the child. One of the NGO nurses told me that her 2 year old son used to repeatedly fall ill with diarrhea. Her mother took the baby to a pundit, who checked the "jumn putr" (birth chart) of the baby and said that the baby was born in the inauspicious constellation of "mul". He said that the child would be sick constantly until age 5 unless the ceremony "tooladan" was performed. In this ceremony, the child is weighed and an equivalent amount of grain, dal and sugar is given to the pundit. A ritual accompanies this offering.

Particular constellations are supposed to be dangerous for childbirth. Anant Chaturdeshi (the fourteenth day of a particular month) and Karuda (the day of intense planets) are the days which are supposed to be inauspicious for giving birth. Giving birth on such a night may be associated with the delivery of deformed children. Or, the child born under such inauspicious planets may die an early death or may cause the death of his or her spouse. Arranging a marriage for such an unlucky child poses problems.

If the baby is conceived 5 to 7 days after the end of the menstrual cycle then the baby is considered auspicious. Babies with birthmarks on the back or large heads are considered auspicious by some, and may bring good fortune.

If a pregnant woman has a particular type of birthmark then she is considered likely to bear stillborn babies or have early abortions. Ritual treatment will be done to neutralize this danger to future pregnancies. In this ritual, a heated arrow is rubbed on the woman's back while a particular incantation is recited.

Planetary influences affect one's fate (kismet), although the specific relationship between planetary influences and kismet is seldom articulated in discourse.

CHAPTER 8

PURITY AND POLLUTION

8.1 The Pollution of Childbirth

In Garhwal, as in most parts of India, concepts of purity and pollution govern many aspects of daily living. Maintaining ritual purity is an important part of right living, or "dharma".

Women's reproductive functions are associated with ritual impurity. Menstruation is considered an unclean process and the touch of a menstruating woman is ritually defiling. She should not enter the kitchen or the worship room during her menstrual period, as this would be polluting. She should not cook food or fetch water during the time she is menstruating.

No ritual accompanies the onset of menses in Garhwal, and in fact most young girls who begin to menstruate have not been told anything about the process beforehand. Menarche is often a frightening experience.

Childbirth is similarly considered ritually polluting. During the whole period of labour and birth, and for a variable number of days afterwards the woman is in a state of ritual impurity. The blood of childbirth is thought to be highly polluting as is the placenta and the cut cord stump. After delivery of the baby, the dai often carefully milks the placental blood away from the baby, to prevent the polluted placental blood from affecting the baby. The placenta itself is considered highly polluting and must be disposed of with care. Usually it is buried secretly near the edge of a field by the dai. If a dog or cat eats the placenta the baby or mother may fall ill. Until recently, childbirth in Garhwal took place in the cowshed because it was considered too polluting a process to take place in the living area of the house. Although babies are still born in the cowshed in remote parts of Garhwal, the practice is rapidly changing. This is partly due to the effects of dai training and partly due to a general wave of modernization in Garhwal, with the diffusion of ideas and practices from the plains of Uttar Pradesh where this practice is seldom done.

Since the blood of childbirth is considered so highly polluting, many dais felt that this blood should be allowed to flow out of the body after childbirth. Even when

the blood flow is heavy, most dais felt that it would not be appropriate to try to stop it.

In Garhwal, dais come from all castes, and a Brahmin dai will attend the deliveries of even a Harijan woman. This is in contrast to many other parts of India, where the dai is usually from the lowest caste. Usually only the dai will attend the woman after the delivery, doing all polluting tasks herself. Many dais expressed some aversion to their work, calling it a very dirty type of work. Dais that were able to obtain gloves were happy to use them. Again, their reasons were related to pollution beliefs about the blood of childbirth.

8.2 Restoring Purity

Purity rituals are done to protect the household from the polluting effects of the childbirth. All the products of the cow are considered sacred and capable of washing away ritual pollution. It used to be common practice in Garhwal either to bathe the newborn baby in liquid cowdung or to apply cowdung to the cut umbilical cord, to remove the ritual impurity of the childbirth process. This is changing with the effects of TBA training. Cow's urine is often sprinkled around the yard near the

confinement room for several weeks after the delivery, to purify the atmosphere.

There are several rituals that are performed to mark the re-entry of the woman into normal society and to welcome the baby. These rituals differ from place to place in Garhwal and also depend on the economic status of the family. However, usually there is a small ceremony on the fifth day after birth, when the mother is fed Laddus (a type of sweet), and a mixture of sesame seeds and rice. She is permitted to emerge from the confinement room at this time. The naming ceremony for the baby is usually done on the 11th day after birth, at which time the baby's horoscope is also cast. Still the mother is not ritually pure. For 21 days she is not permitted to handle water and she cooks and eats her own food separately from other family members.

A ritual of purification usually takes place 40 days after the delivery. This ritual of purification is an important social occasion and villagers often bring gifts for the baby. In the purification ritual, a Hawan (sacred fire ceremony) is performed by the village pundit, symbolizing a return to purity. The ritual may last up to one day and one night, depending on the wealth and status of the family. After this ritual is complete, the woman is

considered pure once again.

After the purification ritual, the woman may visit her parents' place, where her parents often present her with gifts of silver jewellery for the baby, known as Dhaguli and Khagwali. They also give the new mother clothes, 32 Kg rice, and a cow or goat. In poor families, however, much less may be given.

8.3 The Dai's Role in Maintenance of Purity

One of the functions of the dai is to maintain ritual purity as far as possible and to ensure that the parturient woman observes ritual purity rules. She warns the pregnant women to avoid polluting objects or persons, as such breaches of purity rules might adversely affect the fetus. After the delivery she is responsible for disposing of the polluted products of childbirth including blood-soaked clothes and rags, the placenta and the umbilical cord.

Concepts of purity also assume relevance in the spirit possession rituals. People may be possessed either by benign and helpful spirits (the devi or devta) or by

ferocious malignant spirits (the bhut or pret). The devi/devta will only enter those who are have kept themselves pure, avoiding all forms of ritual pollution. The dai herself may be a spirit medium, and she needs to restore and guard her state of ritual purity in order to perform this role.

Women who maintain a state of ritual purity are more likely to stay in good health. Those who are exposed to ritual pollution may develop illnesses that manifest in several ways. One dai describes it this way:

"Many illnesses happen to women when they are in a state of pollution (pradushan). They get a white watery discharge (from the vagina) when their body is not pure. To become healthy again they must become pure."

CHAPTER 9

NEGOTIATING CONCEPTS AND PRACTICE

Case vignettes illustrate ten clinical situations, 7 related to the woman and 3 related to the newborn, which would all be considered dangerous by a cosmopolitan medical practitioner. The interpretations of these cases by dais points to some of the epistemological categories within which dais understand and classify obstetrical complications. These vignettes were presented at three focus group discussions and during 4 in-depth interviews. Excerpts included here are representative. In this chapter, I also explore the way in which dais negotiate explanatory models, decide on therapeutic practice and interact with other healers.

9.1 The Case Vignettes

1. PRE-ECLAMPSIA

Medically, pre-eclampsia is considered dangerous because of the accompanying high blood pressure which

sometimes results in seizures (eclampsia).

CASE: Sunita was pregnant for the first time. Towards the end of her pregnancy she developed swelling of the hands and feet. Later on she developed a headache across her forehead. Have you seen this before? Is it dangerous?

Dai 1- "We have seen this many times. When delivery occurs then the body becomes alright. All the swelling on hands and feet become alright. The blood also becomes clean."

D - "Do you give any treatment for this?"

Dai 2 - "No we don't give any treatment. And neither we give any medicine. It becomes alright by itself."

Comment: This condition was recognized by the dais. However, in none of the focus groups was this condition seen as dangerous. It was thought to be a normal concomitant of pregnancy which would improve with the birth of the baby.

2. THIRD TRIMESTER BLEEDING

Third trimester bleeding is a relatively rare complication due usually to abnormalities of the placenta - either placenta previa or abruptio placenta.

CASE: There was a woman by the name of Laxmi, who was 7 months pregnant. One day when she was working in the fields she started bleeding. The delivery time was not near and she didn't have any pains. Then she came back home and lay down. The bleeding became less but didn't stop. What might be the reason? Is that dangerous?

Dai 1- "Should I tell you why it happens? It happens when the ghost (bhut) teases a woman. It might be a spirit (devi) also. He does all this in order to seek the attention. Either a ghost or a spirit... they all demand offerings."

D - "Do you also think the same?"

Dai 2 - "It may be. It happens lot of times... when pooja is offered then the bleeding stops."

D -(to the other women) "Any other reasons for this?"

Dai 3 - "I have never seen anything like that."

Dai 4 - "Heat might be another reason."

Dai 1 - "In our village that same thing happened. She came back home after collecting the wood from the forest. She had bleeding and also pain but didn't tell to anyone. Then her mother in law asked why she was like that? Then she told about her pain. It was her first baby. The mother in law asked whether the water was falling or not? She replied no, but there was bleeding. Then she called me and asked to tell what happened to her? Then I advised them to put away some rice and Sriphal in the name of the spirit (devi)...A little later the baby was about to abort. When I went there the woman was sitting with her legs tightly crossed. I asked to straighten her legs and after sometime she aborted."

Comment: In discussions with dais some had never heard of this problem, while others offered several explanations. The most common explanation was a supernatural influence as the cause.

3. MALPRESENTATION

Case: Raji was pregnant for the first time. When the dai checked her she found that Raji's baby was lying upside down (ulta). What might be the reason for this? Is it dangerous?

Dai 1 - "Yes, that is dangerous.. we have seen that. Sometimes the baby's path cannot be cleared. Sometimes the baby is not straight in the tummy."

Dai 2 - "The babies who are not straight in the tummy also allow a bhut to sit in the tummy. They might have two placentas. It is a strange placenta because of which one has to give offerings of a four horned sheep, as well as all beds, quilts, mattresses and clothes."

Dai 1 - "Yes, that can be done. And before the pains start one must massage the tummy morning, evening with oil...then we can bring the baby to the right position."

Comment: Malpresentations are always seen as dangerous by

dais. Supernatural explanations are given as causes for the malpresentation quite often. Dais often suggest physical manipulation of the fetus in utero as a therapeutic practice.

4. OBSTRUCTED LABOUR

CASE: There was a girl by the name of Rajni. She became pregnant for the third time. Her pains started two days ago. Although the pains were intense, she still had not delivered the baby by the end of two days. What might be the reason for this? Is it dangerous?

Dai 1 - "She didn't have the strength. When the woman wouldn't have the strength then she can't push because of which she couldn't deliver. It's not necessary that if to someone the first baby is delivered normally then the second one will be delivered alright too. When the woman will push then the path of the baby to come out will open. In some woman's fate there is a lot of pain before delivery."

Q - (addressing another woman) "What do you think might be the reason for this?"

Dai 2 - "The baby might be oblique. Or might be in some other abnormal position because of which delivery is not taking place. These might be the reasons."

Comment: In the case vignettes about obstructed labour, many explanations were offered, including lack of strength, fate, malpresentations and sometimes supernatural causes. Faced with a case of obstructed labour, dais seem to use a variety of therapies including ritual treatments, massage and cosmopolitan treatment (syntocinon injections).

5. RETAINED PLACENTA

Case: There was a girl with the name Jyoti. She gave birth to a baby only two hours ago but still the placenta didn't come out. What might be the reason? Is this dangerous?

Dai 1 - "It can be dangerous. In some women it comes out after two hours and some women can die too. In some women it comes out after three hours."

Dai 2 - "Probably she didn't eat hot food then this happens. In such condition she should be given hot milk mixed with hot spices. Then she will get the heat from that and the placenta will come out. We have done such thing so many times."

D - "Do you ever remove the placenta by your hand?"

Dai 3 - "Why to put the hand inside? By putting hands something else might come outside by which the woman might lose her life."

Dai 2 - "Sometimes when the woman tells about the pain in the tummy then we put our hands inside to take it out. When it comes outside then we give hot ghee to the mother to drink."

Comment: In the case vignette about retained placenta, dais most often attributed retained placenta to abnormalities in the hot/cold balance of the body. Some dais said that the placenta is poisonous, which is why it must be removed. In practice, some dais do manual removals of the placenta whereas others prefer to use dietary therapies alone.

6. POSTPARTUM HEMORRHAGE

CASE: Here is another story. Beena delivered a normal baby. After the delivery the woman passed blood...it was as much as three steel glasses of blood (the common unit of measurement). What might be the reason? Is it dangerous?

Dai 1 - "It's not at all dangerous. Whatever contamination of the blood is in the body that blood comes out and then she is cured automatically."

D - "But suppose there was a lot of bleeding...what would you do if there is a lot of bleeding after delivery?"

Dai 1 - "I don't do anything at that time. What I am going to do at that time? It should come out."

D - "What you think about this?" (addressing another woman)

Dai 2 - "If there is so much bleeding, we would take her directly to the hospital. But why does the blood flow so much... we don't have any knowledge about this? Tell us why the blood comes out? This knowledge is essential for us."

Dai 3 (interrupts) - "No,no...it is not dangerous because after the delivery the dirty blood and water must come out. Some women pass it for six days and some for a month."

D (addressing another woman) - "Can you tell why bleeding might occur after delivery?"

Dai 4 - "When someone does a lot of work such as working in field, cleaning the dung, lifting the heavy loads and due to any other heavy work it might occur."

Comment: In focus group discussions, most dais felt that this condition was not serious, but rather just the expulsion of the dirty, polluted blood of the childbirth process. In this group four out of five women felt that heavy bleeding after delivery was not serious. One dai felt that it was dangerous.

PUERPERAL SEPSIS

Puerperal sepsis is a common cause of maternal mortality in Garhwal, related to unhygienic conditions at the delivery.

Case: Toolika had delivered a baby three days ago. Now she has developed a fever and she has a bad-smelling discharge coming from the vagina. What might be the reason? Is it dangerous?

Dai - "If the fever is due to heat then she should be given the cold things and if the fever is due to cold things then the woman should be given hot things. One more thing. Previously in our villages the women used to have less milk and now there is more milk. When the milk is filled in a

woman then she suffers from fever."

Comment: Most dais focused on fever as the significant symptom. Often they would distinguish between fever with chills, which is caused by an excess of cold foods in the diet and fever without chills, which is caused by an excess of hot foods. None of the women mentioned infectious causes for this condition.

NEONATAL ASPHYXIA

Neonatal asphyxia is often associated with a difficult or prolonged labour.

Case: When Gayatri devi's baby was born, he didn't breathe right away and his skin was bluish in colour. His body was limp and he was not moving. What might be the reason?

Dai 1 - "Probably he had "Dubba rog". If he is taken to the healer then he will give the medicines and then the baby's blue colour will become completely alright."

Dai 2 - "Some babies become blue due to heat then we cure him by giving him bath with a type of green grass."

D - "What are the reasons behind Dubba rog?"

Dai 1 - "As I told if the mother eats inappropriate food such as Harsha, peanuts and other hot things...this will cause this disease."

Comment: This condition was usually interpreted by dais to be an illness called "dubba rog", a form of "rog" (sickness) which is caused by the pregnant woman eating "heating" foods. Dais treat dubba rog using herbal preparations. Resuscitative practices such as artificial respiration are not done.

NEONATAL SEPTICEMIA

Neonatal septicemia is a common cause of neonatal death, often related to unhygienic practices at the time of birth. Symptoms are variable and may not always include fever.

CASE- Three days ago a baby was born to Pushpa. At the time of the birth the baby was healthy but later he stopped sucking the milk properly, developed fever and was continuously crying. What might be the reason?

Dai 1 - "His liver might be in bad shape due to which he was running fever and was not drinking the milk. The baby should be given medicines and cold fomentation should be done by soaking a cloth in cold water and applying it to the abdomen."

D - "What is the reason behind the fever?"

Dai 1 - "When his digestion is not alright then he will develop the fever. Due to this reason he is not drinking the milk."

Dai 2 - "When his liver has a problem how he can drink the milk? That is why he is running the fever."

Comment: Most dais focused on the symptom of fever and related it to processes of digestion, liver function or hot/cold imbalances. Therapy followed humeral principles.

NEONATAL TETANUS

Neonatal tetanus is still common in Garhwal, related to unhygienic practices at the time of birth.

Case: Eight days ago a baby was born to Vimla. In the beginning the baby was alright but later the baby stopped drinking the milk. He developed a fever, and had some muscle spasms around his mouth. The next day he developed seizures. What might be the reason?

Dai 1 - "Yes, I know that. That is "phooli"."

D - "What is Phooli?"

Dai 1 - "Phooli is a ghost (bhut) riding on the child."

Dai 2 - "It must be from the tricks of a ghost or a witch (dakin)."

Comment: In another focus group, the dais suggested that the condition could be caused by overheat, focusing on the fever symptom. One dai suggested it was "pneumonia", using the English biomedical term. The most common explanation for this case vignette was within the supernatural explanatory model.

9.2 The Emerging Cosmopolitan Explanatory Model

The cosmopolitan models of disease are not commonly used by dais in Garhwal. When the dais talk about "dirt" they are usually referring to ritual pollution rather than to dirt in the context of infection. However, a few dais whom I had interviewed had taken a nine-month training programme through the Indian government. One of these dais seemed to have incorporated the cosmopolitan model of infection into her explanatory models of illness. When she was talking about untrained dais, she said:

"And some dais are such that they put their hands inside (the pregnant woman's body) and their nails are dirty. They clean the dung in the house, work in the fields and cut the grass. From all this a lot of dirt is collected in the nails which might produce septic (septic). And the pregnant woman doesn't have any control over these things."

9.3 Negotiating Concepts

Dais often negotiate explanatory models when a complication occurs, and sometimes several different

explanations and treatments may be tried. The supernatural explanatory model, although pervasive, is also frequently challenged. In one conversation, a dai describes a woman with threatened abortion:

Dai 1 - "And the woman started to bleed. Then I said to her, "You have a bhut riding on you, this is why it has happened." So I performed the worship (pooja) for her, with rice grains...like I told you yesterday..."

D - "Could there be any other reason for this?"

Dai 1 - "Sometimes the woman has low blood or some deficiency then this can cause bleeding. In cities you can get medicines which can make the baby stay inside."

On other occasions the explanatory model of "kismet" (fate) competes with the explanatory model of supernatural forces in the etiology of illness. Veena was the woman in the case studies who had had multiple stillbirths. After one of these stillbirths, various ritual treatments were suggested by the pundit in her village to eliminate the evil influence of the bhut which was causing the stillbirths. But Veena said to me, "I don't think it was a bhut at all....I think that it was just my fate (kismet)."

Supernatural causes for illnesses are often constructed in discourse as "andwiswas", a word meaning superstition. Many people use this word disparagingly,

seeing ritual forms of treatment as being the resort of the unenlightened. Pundits or other ritual practitioners gain considerable material benefits from their practices. One dai stated that many people who believe in supernatural causes of illness "spend a lot of money due to this superstition (andwiswas) and get no benefit."

Social workers who have worked in this area have often been very actively opposed to the manifestations of "andwiswas.". Swami Manmathan, the firebrand social activist who founded Sri Bhuwaneshwari Mahila Ashram, the NGO where the field research was done, had led a campaign against ritual animal sacrifice in this area. Swamiji focused a major campaign around this practice. Due to his powerful and charismatic personality, he was able to put an end to animal sacrifice at the Chandrabadni temple. When I asked him why he thought it was important for animal sacrifice to be eliminated, he said, "This is all "andviswas" (superstition). It keeps these people backward and is retarding their progress."

When dais meet and talk to each other about illnesses, they often debate the usefulness of ritual

treatments:

Dai 1 - "One of these pundits told me that if you sacrifice one of your goats for me a son will be born to you."

Dai 2 - "And some pundits say, give five rupees and then the god will be fed. It wouldn't be the food for the god but the pundit will get five rupees to eat peanuts!"

Dai 1 - "It is true...when a baby is not born to someone then some people say that you must sacrifice a goat, do the worship and do this and do that. Then a baby will be born to you. But whatever is desired by God will happen."

Dai 3 - "There is lot of superstition. So many people cheat the innocents."

Dai 1 - "Whatever is written in someone's fate the same will happen. Nothing can happen by someone's doing."

9.4 Negotiating Practice

Many of the practices of dais fall into conflict with cosmopolitan medical practice. In the training programme which we had designed, certain practices of the dais are directly challenged. In challenging beliefs one may risk confrontation and anger. More often the challenge becomes a process of negotiation in which many variables play a part. The male doctor who is now head of the SBMA health programme had been attending a training programme and had heard one dai say that after the baby's birth she bathes the baby in liquid cowdung. He told me:

Dr S: "Yes, actually when she told me that..well, I had never heard anything like that before, and I was quite shocked. I tried to make her understand that cowdung does have a lot of small germs. And then I realized that these small germs that I was talking about was not making any sense to her....I lost all hope of ever..uh..ever making her see reason....."

Dr S was interested to hear that I had interviewed the dai in question a few days earlier and had happened to ask her about the practice of bathing the baby in cowdung. She told me that she had recently found out that this practice could be very harmful since the cowdung contains many very small "kitanyu" (insects). So she has stopped this practice. I asked, "Did you really stop just because one person told you that at the training?" She replied indignantly, "Of course I stopped! If one learns some new knowledge...like about the insects in cowdung, why should one not take the benefit of that knowledge?"

What the dais say that they do and what they actually do may not always correspond, and this makes triangulation of data very important. Dais are naturally reluctant to talk about problems which they could not handle, or cases that went wrong. Most often, they would say "By God's grace, everything became alright." But often the reality was not so simple.

9.5 Negotiating with other Healers

Dais are well aware of the various healers whom patients consult and understand the patients' "hierarchy of resort" very well. In this focus group discussion, the dais offer insights about other healers in Garhwal.

Dai 1 - "The vaidya (herbal healer) feels the pulse and then tells about the illness. Then whatever illness is there he gives powder according to that. With that he tells about the diet too that the person should eat such and such and shouldn't eat such and such. They tell diet restriction according to the pulse. They tell about all diseases by feeling the pulse and also advise that a person is not supposed to eat sugar, tea, chilies, spices and so many other things."

D - "And what about doctors?"

Dai 1 - "Doctors allow all things to eat. They say eat fruit and everything! Doctors don't tell the disease after they check but the healer tells that this is the problem and do this and this."

Dai 2 - "When we go to the cities then the doctor checks the pulse but doesn't tell anything about the disease! They quietly write the medicines which doesn't satisfy the patient. Doctors say that eat all fruits and vegetables but the healer says that don't eat these things."

D - "Sometimes do people go to both?"

Dai 1 - "Yes they go.... Whosoever's medicine is effective then we go to the same person. Sometimes we are benefitted by doctor's medicine and sometimes by the vaidya's medicine."

Dai 2 - "Whether it's the vaidya's medicine or doctor's it will give relief if one follows the diet restrictions. Eating all sorts of wrong things is not going to help."

In this excerpt the dais' pragmatic approach to treatment is evident. There is clearly more congruity in thinking between the vaidya's explanatory models and the villagers' own models than with the doctor's.

Dais are able to negotiate an explanation for a problem that is understandable to village women. When a dai undergoes training in cosmopolitan obstetrics, she may incorporate explanatory models into her ways of thinking about health that are alien to villagers. One key informant is a dai who had undergone a nine month government dai training. She now most often uses cosmopolitan explanations for problems. The other dai who underwent the same training uses very little cosmopolitan discourse, but has managed to successfully blend some cosmopolitan concepts without disturbing most of her traditional practices. Incorporating some aspects of cosmopolitan obstetrics added a certain prestige to this dai's position. She has become by far the more successful of the two.

When a dai comes in contact with a medical doctor, the relationship is often one of mistrust and suspicion. The doctor often blames the dai for referring the woman late in

the course of a complication. A well known obstetrician in Dehra Dun mentions this problem:

"The problem arises when the dais hang on to the difficult cases. Here in Dehra Dun the dais say to the patients..you see, they have a fear of hospitals and they try to keep the fear in the woman's mind.."Apko loot lenge...ya kat lenge..ya operation kerenge..." (You'll be cheated...or operated upon..or they'll do the family planning operation on you..")"

9.6 Therapeutic Options: Making a Decision

The decision to consult a ritual practitioner or an cosmopolitan practitioner in the case of illness seems to be made in several ways. Certain illnesses are more likely to be attributed to devi/devta, in which case a ritual practitioner would be sought. At other times, a patient may be taken first to the doctor and then if relief is not obtained he will be taken to a ritual practitioner for consultation with the devi/devta. Or, conversely, if ritual treatment is not effective the patient may then be taken to a doctor. RD describes how these decisions are made:

"First pooja is done for the person who is sick. We take five rupees, rice and three stringed thread and make it rotate seven times around the person...After rotating the devta's things seven times around the person then the devta may come on the sick person. Then that person might say "you called me but didn't give me my share." And while speaking this if the person starts to improve then the devta is worshipped then and there. And if the person or animal is

still having problems then they are taken to the hospital....If the person is not cured in the hospital then she or he is taken again to the devta. If she or he is not cured by the devta then again the person is taken back to the hospital."

Cosmopolitan medical treatment is clearly a therapeutic option in this case, even though the illness is initially believed to have a supernatural cause. Dais move between explanatory models and therapeutic approaches in a pragmatic way, as the situation evolves.

CHAPTER 10

DIVERGENT REALITIES IN THE PERCEPTION OF DANGER

Berman's approach to the study of the sociocultural context within which decisions about health care are made emphasizes the dynamic nature of the process. Recognizing a dangerous situation is both a psychological and behavioral process which is mediated by the sociocultural environment of the actors involved (Berman 1994). We need to work towards a holistic understanding of illness perceptions and meanings, as well as learning more about the specific behaviours and strategies that are used at the household level.

In this chapter, I analyze the evidence presented in primary ethnographic research on the perception of "danger" by dais in Garhwal, and how that affects their decision-making strategies. I then move on to an analysis of how explanatory models are negotiated and how the quest for therapy is conducted at the time of an obstetrical complication. The role of the dai as a diagnostician and a decision-maker is highlighted. The implications of this work for TBA training programmes concludes the discussion.

10.1 The Construction of "Danger" and "The Dangerous Case"

The data suggests that dais in Garhwal conceptually hold several explanatory models within which they analyze and classify medical problems, including serious obstetrical complications. The major explanatory models I have identified are humeral, supernatural, and purity/pollution. Folk concepts of health also include a spatio/temporal way of conceptualizing illness. These explanatory models are extensively interpenetrated and cannot be considered in isolation of each other.

Many of the beliefs and practices of the dais in Garhwal have their roots in humeral theories of illness causation. Humeral theories of illness causation are based on concepts of balance and harmony - not only within the body but also in social relationships, in relations with nature and in relations with the supernatural (Anderson 1987). Danger in this epistemological category would be constructed as those events which are clearly out of balance, out of harmony with the normal relationship of body and environment. Therapeutic practice would be aimed at restoring this balance, by physical, dietary and ritual

methods. Physical application of a hot or cold compress may be used to restore the humeral balance. Postpartum women are protected from wind (vayu), which has cooling properties that are harmful to the postpartum woman. Wind is associated also with the undesired entry of malevolent spirits into the confinement room. Dietary therapy would involve administering foods which are cooling (in the case of overheat) or foods which are heating (in the case of excess cold). Ritual therapy involves propitiating the spirits which may pose a danger to the postpartum woman, in order to maintain a harmonious balance between the natural and supernatural world.

Supernatural theories of illness causation represent an important conceptual category. From the case studies and interview data, it becomes clear that both spirit possession and spirit mediumship are recognized in Garhwal, and dais themselves are often ritual practitioners. Women in pregnancy and the postpartum period are perceived to be particularly vulnerable to spirit attack, as are newborns in the dangerous days following birth. Similar findings are reported from Malaya, where Laderman notes that the period around childbirth is considered to be a time when both women

and newborns are vulnerable to spirit attack (Laderman 1987). Banerjee, working with the Dhimar community in Madhya Pradesh, also notes that the period immediately around childbirth is a time of great vulnerability to spirit attack (Banerjee 1988).

What could be the reason for the vulnerability of the woman to supernatural influence around the time of childbirth? Mary Douglas, in her seminal work Purity and Danger has pointed out that ambiguous or anomalous events may be labelled dangerous (Douglas 1966). These events fall outside of well-understood patterns, and thus threaten the social order. Disorder, by spoiling pattern, symbolizes danger and power. In the disorder of mind in dreams, faints, frenzies, one can reach powers and truths which cannot be reached in a conscious way. The ritual practitioner ventures into the realms of disorder, beyond the confines of society. The practitioner returns with a new power, which he or she uses in ritual to create and control experience. Rituals, using the symbols of anomaly, incorporate evil and death along with life and goodness into one unifying pattern (Turner 1969).

In a theistic world view, the universe is personal and physical forces are thought of as interwoven with the lives of persons. The sorcerer and the magician try to transform the path of events by symbolic enactment. The personal, particularistic nature of misfortune troubles people everywhere: Why did this farmer's crops fail and not that farmer's? In the Sudan, Azande use witchcraft to explain the personalistic nature of misfortune (Evans-Pritchard 1937).

The ambiguity applies to social roles as well as to unexpected events. Certain stages of life place individuals in an ambiguous social role. For example, during and just after childbirth the woman's social status is ambiguous - she is neither totally one with nor totally separate from her unborn child. In her transitional state lies danger. She who must pass from one stage to another is herself in danger and emanates danger to others. This is the reason why women in the liminal state around childbirth are so often perceived to be susceptible to supernatural attack. There is a need to maintain boundaries between the natural and the supernatural. It is at this time, between birth and death, that these boundaries are most threatened. Many of

the ritual acts performed at the time of childbirth are aimed at boundary maintenance.

Danger, in the supernatural epistemological category, reflects fears about liminality, and about violation of the boundaries between the living and the dead. The therapeutic practice of dais who are working within this category involves ritual acts of boundary maintenance, and ritual acts to define, restore and create social roles and categories.

Concepts of spirit possession and ritual purity and pollution are linked in several ways. The dais tell us that an unmarried girl who dies becomes a goddess (devi), a young married woman who dies becomes a ghost (bhut) and a woman who dies in childbirth becomes the most dangerous ghost of all (churel). This classification seems to be related to concepts of relative purity at these three phases of life. Similarly, one dai mentioned that she had been a spirit medium when she was unmarried ("pure"), but the spirit did not descend upon her for many years while she was married and having children ("impure"). Now that she has entered menopause she is once again pure enough for the spirit to

enter her body. In the Siri possession cult of south India, Siri spirits only enter those who are ritually pure. When a person is in a state of ritual pollution the Siri spirit will not enter and will cause great pain and discomfort to the individual (Claus 1979).

Danger, in the purity/pollution epistemological category, seems to relate to concepts of ambiguity and to the maintenance of social boundaries. Part of the dai's ritual function is in protecting pregnant women from breach of serious taboos and from failing to observe purity rules. The dais ensure that postpartum women observe ritual prohibitions against leaving the confinement room and returning to their normal duties until a purification ceremony has been done, usually somewhere between 21 to 40 days postpartum. The necessity of purification rituals following childbirth has been widely documented in South Asia. Srivastava describes the ceremonies of suraj pooja (sun worship) and nahavan (purification) in the villages of Rajasthan and rural Uttar Pradesh (Srivastava 1971). Until these ceremonies have been performed the whole family remains in a state of impurity.

Menstrual blood, the fetus and the placenta are all perceived as possible sources of danger to the woman or her family. Again, it seems to be the recurrent theme of ambiguity which poses the danger. Menstrual blood is thought to be the life-substance out of which the baby is created, and therefore has lifelike, yet ambiguous properties. The fetus is not yet a fully developed human being with a social role, again ambiguity. The fetus is not yet a fully developed human with a social role - again, ambiguity. Belief in the danger that the fetus poses is reflected in the data regarding the baby who is born under the planetary configuration of Mul. This baby, according to the Garhwali informants, is considered highly dangerous to his or her father, and may in fact be brought up by a different family, so great is the perceived danger. The placenta is believed to have a special connection with the fetus - in some accounts, it is considered to be the imperfectly developed twin of the baby itself (Laderman 1987). For this reason, it is disposed of with great care, being buried deep in the ground. If dogs were to dig it up and consume it, great harm would occur to the mother or baby. Retained placenta also poses a great danger to the mother, as the placenta is considered both poisonous and

polluting. It is the concept of pollution rather than sepsis which makes the complication of retained placenta dangerous.

In Garhwal, folk concepts of health include many ideas drawn from ancient sources but combined in ways which often bear little resemblance to the classical Ayurvedic notions of therapy. Helen Lambert (1992) comments that a prominent analytic tendency in discussing popular healing in present-day India has been to focus on Ayurveda as the indigenous medical tradition in contrast with modern biomedicine, and to assume that all lay (including folk, indigenous and popular) conceptions and practices are straightforwardly derived from this textually based tradition. Ayurveda and folk ideology share the hot/cold idiom, although not the formal Ayurvedic explanatory model. It is empirical practice which is shared (Nichter 1980). There are also many forms of folk treatment which are non-Ayurvedic in nature and bear no direct relationship to explicitly medical institutions. At the village level, folk healing and the textually based medical and religious traditions are deeply interpenetrated and highly pluralistic. There are also many popular forms of ritual

therapy in which medicinal, substantive and symbolic aspects are interwoven (Lambert 1992). These rituals are performed by folk healers, priests, mothers and family members.

In Garhwal, a popular form of folk healing is the "jhar-phuk" ritual, in which the practitioner recites an empowered mantra while sweeping a feather over the afflicted individual in the direction of the feet. Lambert notes that many indigenous therapies are aimed not at cure of a condition but rather at containing the illness and preventing adverse effects from it. A spatio-temporal concept of healing prevails, in which therapies are aimed at encouraging the illness to pass through the body normally, usually from the upper part of the body to the lower (Zimmerman 1988). The "jhar-phuk" ritual is meant to encourage the passing of the disease out of the body in a speedy and harmless way.

10.2 Perceptions of Danger Reflected in Therapeutic Practice

The perceptions of danger are reflected in the therapeutic practice of the dais, which aims to restore a state of humeral balance, protect the woman against spirit

attack, treat conditions associated with physical displacements, and preserve and restore ritual purity. The perception of danger and of the resulting therapeutic practices of dais lead to significant divergence from cosmopolitan perceptions and practice.

The construction of pregnancy as a heating condition leads to dietary proscriptions during pregnancy in Garhwal which can be quite extensive. Common foods which are prohibited by dais include meat, eggs, peanuts, several forms of lentil, and several types of vegetable. The ingestion of hot foods is seen to be dangerous not for the mother so much as for her newborn child. Folk illnesses of the newborn, of which "dubba rog" is the most widely recognized, are thought to occur as a result of the women eating heating foods during her pregnancy. Following the delivery, the mother is thought to be particularly vulnerable to cooling. She must be protected from wind (vayu) following the delivery, by confinement in a room where an angiti burns.

Illnesses of the woman and the newborn are frequently interpreted within the explanatory model of

humeral imbalance. Fever is often interpreted as a sign that the body is in a state of overheat. In the case vignette studies, the fever associated with puerperal sepsis, a major complication of the postpartum period, was most often interpreted by dais as being a problem of overheat. Similarly, the case vignette of a newborn suffering from poor appetite and fever (suspected neonatal septicemia from the cosmopolitan point of view) was also interpreted as a condition of overheat by dais. Therapeutic measures were suggested to restore the body to a state of balance, by administering cooling foods and by cool compresses.

Qualities of digestibility of food as well as the relative heating/cooling qualities of food are considered by dais when they recommend therapeutic diets for pregnant and postpartum women. Foods have different qualities of digestibility, and those who are in a weakened or vulnerable state would do well to avoid difficult-to-digest foods. The thick first breastmilk is considered to be particularly indigestible. Prohibitions about feeding the newborn the mother's first milk are widespread among dais in Garhwal.

Conditions which appear suddenly and unexpectedly and are clearly abnormal are often interpreted by Garhwali dais to be due to spirit possession. Thus, prepartum hemorrhage (third trimester bleeding) and fits due to eclampsia are two conditions which would most likely be interpreted in this way. Newborns are also believed to be very vulnerable to spirit attack and many illnesses of the newborn period are interpreted as caused by spirits. Fits associated with neonatal tetanus are most often interpreted using the supernatural explanatory model. Dais in Garhwal are quite often deeply involved in the treatment of such spirit-caused illness by performing as ritual practitioners themselves.

10.3 Negotiation of Explanatory Models

Many of the healing practices which the dais employ are based on their understanding of the spiritual causes of illness. Their diagnoses and therapies are embedded in a sacred world, whereas the therapies of cosmopolitan medicine are embedded in a predominantly secular world. Yet as practitioners, the dais are able to move back and forth between the therapeutic worlds with ease. As Finkler has

noted in the Mexican context, people seeking treatment are not bothered by the profound epistemological differences between therapies, unlike academicians who often regard the two healing regimes as diametrically opposed and in competition (Finkler 1994). In search for alleviation of their illness pragmatism prevails, and patients judge therapies by their effects rather than their theoretical basis.

When faced with an unfamiliar problem, dais move between their epistemological categories, negotiating an explanation which seems to fit the clinical situation. Case study 3 (Geeta) illustrates this process of interpretation and negotiation, where Geeta gives birth to a baby who is seriously ill. The dai interprets the illness of Geeta's baby to be a problem of overheat, caused by Geeta's inappropriate diet during pregnancy. The dai diagnoses "dubba rog", and prescribes a herbal mixture for the baby. Geeta's mother-in-law does not appear to agree with the dai's diagnosis, and after the dai leaves she instead treats the baby by hot fomentation to the abdomen. The baby dies a few hours later, and the dai remarks indignantly, "When the baby was suffering from overheat there was no need to apply

more heat!"

When cosmopolitan care is accessed, the interpretation of the ultimate cause of the problem does not necessarily change. The case study highlighting Veena, who had had repeated stillbirths, illustrates this point. When Veena's baby stopped moving, Veena did gain access to cosmopolitan care - she was transferred to Dehra Dun where she had an induction of labour and the baby was treated in a pediatric intensive care nursery. Yet Veena's husband and family felt that the underlying cause behind her misfortune lay in the supernatural realm, and this belief did not change even after Veena and her baby returned home safely. Veena herself thought her problem was due to fate (kismet).

Spontaneous abortions are commonly thought to have a supernatural ultimate cause, yet one dai also remarks that "nowadays doctors can treat this problem with injections and medicines". Again, the dais seem to be moving at two different levels in their thinking about obstetrical problems - at the level of proximate causes, where cosmopolitan medicine is often seen to be efficacious and at

a level of ultimate causes, where despite cosmopolitan treatment, ritual treatment may also be required.

Varied theories of disease causation may not be mutually exclusive and may in fact overlap. Dais in Garhwal may offer several explanations for a problem and may use a number of different therapies. In the case study of Rita, who had a prolonged first labour, the dai tries a vaginal oil massage first. Then she calls the nurse who gives syntocinon injections. Following this Rita's mother-in-law performs a ritual to rid the labouring woman of an intruding malign spirit. Finally Rita is transferred to hospital for cosmopolitan treatment, the nurse having made the diagnosis of a "uterine ring". Rita is able to deliver spontaneously in the end. This approach is similar to that described by Laderman in Malaya, where TBAs may use multiple etiologies to explain an obstetrical problem (Laderman 1987). A humeral imbalance may precede soul loss which in turn invites spirit attack. TBAs in Malaya combine humeral treatments with magical - for example, massage may be preceded by incantation. In a difficult labour all available methods are called into play. The TBA combines massage with application of humerally hot oils, use of

amulets, magical oil, and opening of windows and doors to evoke womb opening. Conditions not responding to treatment are ascribed to the will of Allah, for which "blessed cooling prayer" is the only remedy.

10.4 Negotiating Therapy

When dais are faced with a serious obstetrical complication which they feel they cannot treat, they must negotiate a complex path with the woman and her family in order to make a decision to access hospital care. Economic and infrastructural barriers to high quality hospital care are undeniably great, as the case study of Meera illustrates. The perceived danger of the obstetrical problem, the family's economic situation and the difficulties of gaining access to hospital care are factors which must be carefully weighed in the decision to seek hospital care. The case studies also clearly describe the problem of "sharm" - women's shyness or shame. Women in Garhwal sometimes refuse to be examined or to seek referral treatment because of "sharm". Even the dai, who is such an influential opinion-maker, seems unable at times to overcome

these powerful feelings.

When dais choose a therapy, their approach is based more on availability, affordability and presumed efficacy of treatment rather than on the underlying basis for that therapy. This pragmatic and eclectic approach to health-care seeking has been noted by many researchers in South Asia. Traditional healers in rural India may ascribe some problems to a physical cause and may suggest that the patient see a doctor (Kapur 1979). These healers also often use cosmopolitan medicines as part of their therapeutic armamentarium. Nichter has also noted the eclectic mix of therapies used by practitioners in South Kanara. Displays outside practitioners' offices may include hypodermic needles, ayurvedic tonics and homeopathic pills (Nichter 1980).

Dais in Garhwal debate among themselves and with family members about the efficacy of various forms of therapy. Ritualistic therapies are often the subject of hot discussion, with some dais firm believers (and practitioners) and other dais inclined to think that the ritual practitioners are merely exploiting patients for

their own benefit. In their discourse about the supernatural, villagers shift between belief and doubt, assessing both gods and human mediums critically. Carstairs, working in Rajasthani villages in the early 1960s, noted that it is within this shifting overlay of doubt and faith that religious observances and ritual practice take place (Carstairs 1961).

10.5 Proximate and Ultimate Causes of Illness

In the case vignette approach, dais were presented with ten clinical situations which are regarded as dangerous from a biomedical perspective and asked for their interpretations. This approach could be considered as a etic approach to learning about the dais' concepts of danger. The question of danger was studied from pre-constructed danger situations modeled on cosmopolitan practitioners' concepts of danger. An emic understanding of danger was much more difficult to understand. However, as the research process progressed I became aware that the dais' construction of danger had an entirely different basis from mine. The dais' perceptions of danger are not framed in terms of clinical situations or "dangerous cases", which is

a common way in which the cosmopolitan practitioner constructs knowledge categories. Rather, they frame their perception of danger in terms of "risk behaviours" (attracting evil spirits, eating hot foods, violating purity rules) rather than clinical situations. The reason why they frame their answers in this way is that they are thinking about danger on a level beyond the proximate causes of dangers which would affect just the woman and her baby. These are dangers which are broader, dangers which may affect not only the woman but the community and the moral order. Since dais attribute great importance to ultimate causes, both their diagnosis and therapies are aimed primarily at ultimate causes rather than the proximate, although both levels of causation may be addressed in their therapeutic practice.

10.6 Implications for TBA Training Programmes

The research on divergent realities in the perception of obstetrical complications arose out of an involvement with TBA training programmes, and the perceived need to make them more culturally congruent. Goodburn has

questioned whether TBA training is useful at all, given that the TBAs' explanatory models of illness about illness are unchanged by training (Goodburn et al 1995). However, my research suggests that TBAs are key figures in maternal health care, particularly at the time of an obstetrical emergency, when they often make the decision to seek referral care. This essential role must be recognized. The TBA training programme in Garhwal did have an impact on specific changes in practice (e.g cutting the cord with a sterile razor blade). Studies on syncretization of health models have shown that while specific practices may change after exposure to a different health model, the underlying belief system usually remains intact (Lepowsky 1990). In the case of the dais in Garhwal, new practices were incorporated into existing explanatory models quite successfully. In addition, the dais were effective promoters of immunization and family planning within a community health programme. I would therefore argue for a continued effort for TBA training, but with a revision in training approach. Both content and process of the training must reflect the sociocultural context of the TBA, and techniques used in training must be designed with an understanding of cross-cultural intervention strategy

design. The challenge in designing a training programme is to move towards a shared perception of risk, rather than a shared explanatory model.

Selection of Candidates

Appropriate selection of candidates for TBA training is of critical importance if TBA training is to be effective. In Garhwal, most TBAs do only a few deliveries each year. In this context, it might be more appropriate to select the "specialist" dais for in-depth training, who do many more deliveries. Some of these dais may later become trainers themselves, as they are able to communicate effectively with other dais. A different form of training may be more suitable for the TBAs who do only a few deliveries each year. To reach out more broadly to these women and the community they serve, TBA trainers may use traditional forms of communicating knowledge such as the "padyatra". In the padyatra, used by social activists and religious teachers in India for hundreds of years, a group of people travel from village to village meeting the people and discussing issues of importance in the evening or when villagers are free. Folk media such as drama and songs are

often used to communicate messages and inspire discussion. Such an approach may also be used at fairs and festivals (called "melas" in Garhwal), where many hundreds of people gather.

Training Methods

Evaluation of the methodologies used in the TBA training programme showed that role play, songs and stories were methods which TBAs enjoyed and understood. Concepts introduced using these methods seem to have been better retained than concepts introduced by didactic teaching methods. In the revised training programme, these interactive methods are being explored more deeply as a means of communication. When dais share experiences, they often use stories, metaphors and proverbs to illustrate their points. Agricultural analogies are frequently used in explanations about conception and pregnancy. Dais speak about the woman's body as the earth, the man's semen as the seed and menstrual blood as the rain when talking about conception. The use of such agricultural analogies in health education programmes has been suggested by Nichter, working in South India (Nichter 1989).

Conceptual Conflict Areas

There are particular areas of conceptual conflict where the dai's understanding of the problem is widely divergent from the cosmopolitan medical practitioner's. The construction of prepartum hemorrhage as a spirit possession, for example, may lead to lengthy ritual treatments being conducted before cosmopolitan medical care is sought. Obstructed labour is often similarly constructed, leading to delays in reaching a hospital. The construction of postpartum hemorrhage as a cleansing process not requiring treatment may result in women not receiving needed emergency care. The construction of the fever of puerperal sepsis as being a hot/cold imbalance may result in a delay in obtaining antibiotics for this condition. Finally, severe neonatal illnesses such as neonatal septicemia and neonatal tetanus are often constructed as spirit possession or as problems relating to digestion of breast milk. Neonatal septicemia is amenable to antibiotic treatment if cosmopolitan medical treatment is obtained in time. Neonatal tetanus, while difficult to treat once established, is easily preventable. Neonatal asphyxia, and possibly several other conditions of the newborns, are interpreted

using a folk idiom called "dubba rog", which is thought to be due to the pregnant woman eating heating foods during pregnancy.

While TBAs and cosmopolitan practitioners have widely divergent explanatory models about obstetrical complications, there are some areas of convergence in the perception of risk. Conditions such as retained placenta, malpresentation, and third trimester bleeding are perceived to be dangerous by both dais and cosmopolitan practitioners, although for different reasons. These areas of convergence can be used in designing a culturally appropriate training programme.

In other cases, specific concepts need to be challenged directly, and alternative concepts (congruent with the dais' existing explanatory models) need to be promoted.

Areas where such negotiation can take place:

1. Food taboos during Pregnancy: Challenging certain food listed as hot by pointing out in that in other areas of

Garhwal such foods as not considered hot. Balancing needed "hot" foods such as lentils with cooling foods such as yoghurt to be eaten at the same meal.

2. Postpartum hemorrhage: Challenging the concept that blood is dirty and should be expelled by the concept that blood is life-giving.

3. Third trimester bleeding: Challenging the concept that this is caused by spirit possession and treatable by ritual only by the concept that it is caused by displacements of the placenta and that cosmopolitan treatment is needed (possibly along with ritual treatments).

In the training programme, it is important to recognize the different importance that dais and doctors place on the proximate versus the ultimate causes of obstetrical problems. During training, it may be emphasized that in certain obstetrical problems (such as prepartum hemorrhage) cosmopolitan medicine may be efficacious. The dais' acceptance of the usefulness of cosmopolitan medicine does not need to come at the expense of their understanding of the ultimate causes behind the problem. The dai's role

as a healer often necessitates that she deal with both these levels of causation. Women suffering obstetrical complications, like seriously ill patients everywhere, seek for the "why" behind the illness.

CHAPTER 11

CONCLUSION

11.1 "Danger" and the "Dangerous Case" : Divergent Realities

Traditional birth attendants are the primary health care providers for women at the time of childbirth in many parts of the world. In Garhwal, an area in the Himalayan foothills of Uttar Pradesh, India, these women play a key role in maternal health at the village level. The TBA, called the dai in India, shares a worldview with the women she cares for, and assists the woman throughout her pregnancy and delivery in a way that is deeply meaningful. Dais in Garhwal are the primary health caregivers, who are intimately involved with the process of recognizing and classifying an obstetrical problem. They are the ones who negotiate an illness meaning with the woman herself and the family members and who often make the decision regarding the type of therapy to be chosen in a given set of circumstances.

Studies have shown that short training programmes for TBAs can lead to reductions in neonatal mortality as well as improvements in maternal care, due to improved hygienic practices at the time of delivery. Yet training programmes for TBAs often lack sociocultural relevance and fail to incorporate an understanding of the TBAs' perceptions of the process of pregnancy and delivery. An understanding of the sociocultural context of the work of the TBA and of illness meanings within a given context may make training programmes for TBAs more culturally congruent.

This action-research project began from a request from an NGO in Garhwal to evaluate and revise a training programme for dais that has been in operation since 1990. The research process began with an in-depth study of the sociocultural context of the work of the TBA and then moved on to an evaluation of the TBA training programme. The third stage of the work, presently underway, is a revision of the TBA training programme, using the insights from earlier stages of the research.

This report has described the sociocultural context of the dai in Garhwal, and the role of the dai as a

diagnostician and a decision-maker. I have focused particularly on the way in which dais in Garhwal interpret obstetrical complications, and how they make decisions regarding the need for cosmopolitan medical care when such a complication occurs. The dais use a variety of explanatory models to understand obstetrical problems, which show influences of Vedic, Ayurvedic, folk and cosmopolitan medical models. The dais' perception of danger arises out of the explanatory model that they use to understand the illness. This understanding leads them to plan specific strategies based on the illness meanings that they have ascribed to the condition. These explanatory models often lead to a perception of "danger" and the "dangerous case" which is widely divergent from the cosmopolitan medical model. I have identified specific areas where the dais' interpretation of "danger" is particularly divergent from the cosmopolitan medical model. The perception of postpartum hemorrhage as a cleansing process, the perceptions of the fever of puerperal sepsis as being a hot/cold imbalance, and the perception of prepartum hemorrhage as being a spirit possession are examples of these conflict areas. Conditions of the newborn including neonatal asphyxia, neonatal septicemia and neonatal tetanus

are interpreted within the humeral or supernatural explanatory models. These areas of conceptual conflict result in diagnoses and treatment procedures which can lead to significant delays in the woman and her newborn receiving needed cosmopolitan care.

When choosing a form of therapy, the dai aims first of all to remedy the problem as she sees it. Later, if that chosen therapy is not effective she will try another form of therapy. She is pragmatic in her approach and will use cosmopolitan medicine as an option in a serious obstetrical complication. However, cosmopolitan medicine is seldom the strategy of first choice, particularly when the problem is believed to have a supernatural cause. The dais' analysis of obstetrical complications often considers causation at two levels - proximate and ultimate causation. Ultimate causes, which address the "why" behind the illness, often arise from the supernatural realm.

11.2 Implications of the Research for Training

The evaluation of the dai training programme in

Garhwal revealed that while the training programme had an impact on specific changes in practice (e.g. cutting of the cord with sterile razor blade), it seemed to have little effect on the underlying explanatory models which that dais use to interpret and explain obstetrical complications. Interactive methods of teaching (role play, songs and stories) seemed to be more appropriate and effective than didactic teaching methods. The training programme is presently undergoing a revision, involving the dais themselves as participants in the revision process. In the revised programme, trainers focus greater attention on appropriate selection of candidates and more interactive teaching methods. "Specialist" dais, who conduct many deliveries, may have an important role as trainers.

Specific areas of conceptual conflict are addressed in the revised training programme, using a process of negotiation rather than didactic training. The training programme aims to work not towards a shared explanatory model of health and illness but rather a shared perception of risk in specific circumstances. Within an atmosphere of mutual respect, trainers and dais work together towards common understandings.

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Glossary of Terms

bhut	ghost
dai	traditional birth attendant
dal	lentil
devi	female spirit
devta	male spirit
nazar	evil eye
NGO	non-governmental organization
pundit	Brahmin priest who is also a ritual practitioner
SBMA	Sri Bhuwaneshwari Mahila Ashram, the NGO where the research took place
vaidya	traditional practitioner practising Ayurvedic and folk medicine

DEMOGRAPHIC DATA

Total number of dais interviewed		45
	Average age	50.5
	Literacy	6.6%
Religion		
	Hindu	43
	Muslim	2
Caste		
	Brahmin	15
	Rajput	20
	Harijan	5
	Not recorded	5
Trained		14
Untrained		31
Cases delivered per month		1.6