NICARAGUAN MIDWIVES:

THE INTEGRATION OF INDIGENOUS PRACTITIONERS

INTO OFFICIAL HEALTH CARE

Kirsi Viisainen

Department of Anthropology

McGill University, Montréal

May, 1990

A thesis submitted to the Faculty of Graduate Studies and Research
in partial fulfillment of the requirements for
the degree of Master of Arts.

ISBN 0-315-75867-8

DEPARTMENT OF PUBLIC HEALTH
UNIVERSITY OF HELSINKI
HAARTMANINKATU 3
SF-00290 HELSINKI FINLAND

Telephone
National (90) 434 61
International +358 0 434 61

Telefax
International +358 0 434 6456

Thesis Office
Dawson Hall. Rm 311
853 Sherbrooke st W
Montreal, Quebec
H3A 2T6, Canada

29.6.1992

Dear Ms. Troiano

thank you for informing me about the National Library of Canada rejection of my M.A. thesis. This is unfortunate to hear. The copies of the thesis I sent to you were all complete with all pages but somehow some pages have got lost on the way to the National Library it seems.

I am not able to send new copies of the missing pages on American paper size. Instead I am sending you the whole thesis on A4 paper which I have spare copies of. (American letter size paper is unavailable here.) The page numbering is slightly different in this paper size, that is why it is safer to sent the whole thesis. Unfortunately I am not able to send it in Accopress bindings because they are not available in Finland, either. I hope you can send this copy of the thesis for microfilming. If this does not work, please let me know.

Yours sincerely,

Kirsi Viisainen, M.D., M.A.
Dept of Public Health
Haartmaninkatu 3
00290 Helsinki
FINLAND

ABSTRACT

This thesis examines midwifery and health planning in Nicaragua. The process of integration of indigenous midwives into the official health care system is described both at the level of government policy and at the level of training. The ideological and economic premises of the training program are contrasted to the cultural, social and economic reality of the lives of indigenous midwives and the functioning of health care institutions. The results of the training are discussed in light of the stated goals of the program. A critical approach is suggested for the anthropological study of indigenous midwifery.

Résumé

Ce mémoire se penche sur l'intégration des accoucheuses traditionnelles aux programmes de santé nicaraguayens. Ce processus est décrit à deux niveaux: celui des politiques gouvernementales et celui de la formation pratique. Les prémisses idéologiques et économiques du programme de formation sont comparées à la réalité culturelle, économique et sociale de la vie des accoucheuses traditionnelles et du fonctionnement des institutions de la santé. Les résultats du programme de formation sont évalués à la lumière de ses buts officiels. Une approche critique pour l'étude anthropologique des accoucheuses traditionnelles est suggérée.

ACKNOWLEDGEMENTS

I am especially indebted to professor Margaret Lock for her excellent teaching and supervision during my graduate studies in Medical Anthropology. Special thanks also to professor Allan Young for his excellent advice and encouragement and to Dr. Ellen Corin for her insightful guidance during the preparation of this thesis. I am grateful to Naomi Adelson, Lisa Edelsward and Deborah Sick for their suggestions and editorial advice.

The fieldwork for this study was funded by a grant from the Social Sciences Research Grants Committee at McGill University for which I want to express my gratitude. I am indebted to several people for their assistance during my fieldwork in Nicaragua. I want to thank the women of 'Valle' and the midwives of Estelí for accepting me so warmheartedly into their homes. Also, I want to express my appreciation to the officials of MINSA, to Dr. Freddy Gárdenas and Dr. Guillermo Gonzales especially, for their cooperation and to Mayra Arce and Alicia Huete for introducing me to the midwives of Estelí. I am also indebted to Pedro Félix Obregon for his assistance.

Finally, I want to express particular gratitude to my parents for their understanding and support despite the distance separating us.

TABLE OF CONTENTS

CHAPTER 1. INTRODUCTION

Throughout the Third World, governments have been seeking ways to use indigenous medical systems as at least partial solutions to the immense health problems of their populations. With formal encouragement from international agencies such as the World Health Organization (WHO), the training of indigenous midwives to work as primary care workers within official health care systems has become a widespread policy (WHO/UNICEF 1979, Mangay-Maglacas and Pizurki 1981). The major reasons for the specific attention given to indigenous midwives in numerous primary health care plans are as follows: midwives can easily be identified as a unified group by their tasks, midwives deliver a high proportion of children in many countries; maternal and child health is a major focus of most primary health care programs, and midwives' position in communities has made them a focus of government efforts to implement family planning programs (Heggenhougen and Sesia-Lewis 1988). However, governments and agencies seldom pay more than lip service towards the creation of official pluralism in the health care systems, as the midwife training programs are implemented out of economic and political reasons rather than of a deep felt belief in the efficacy of traditional practices (Pillsbury 1982).

Opinions on the usefulness of indigenous midwives in official health care systems vary across the board. Biomedical authorities have doubted the rationality of using indigenous practitioners, accusing traditional medicine of an inability to deal with critical situations:

> Where women are dying in their thousands from haemorrhage, anaemia and obstructed labour, we are being told to fall back on traditional medicine as if traditional medicine has the answer to the arrest of haemorrhage from ruptured uterus (Harrison 1989:2).

On the other hand, anthropologists have examined indigenous midwifery as socially and culturally determined practices, and emphasized the cultural appropriateness of midwives' practices:

> In many traditional cultures, among the group of women who support a woman in childbirth there is one who has learned special midwifery skills and who orchestrates what happens in the birthing room. She is the empirical or 'lay' midwife. ... She belongs to the local community, speaks the same language and dialect, already knows the woman and her family well, shares the same system of beliefs about health and illness, is readily available, and is either paid in kind or charges very little. She is usually expert in a variety of comfort techniques and ways of assisting the birth by transforming the woman's psychological state (Kitzinger 1988: 9).

Anthropologists have generally not analyzed indigenous midwifery in a larger social and economic context, and have rarely addressed the issue of midwife training. The anthropological critique of midwife training programs usually focuses on the methodologies used in courses. It is frequently suggested that training programs virtually ignore indigenous systems of knowledge and practice, while accepting biomedical obstetrics as the only legitimate authoritative knowledge (Jordan 1989, MacCormack 1989). Studies such as these do not examine the premises or assess the effects of midwife training.

In this thesis I examine indigenous midwifery and health policy making in Nicaragua through an analysis of the midwife training program established by the Nicaraguan Ministry of Health (MINSA) designed to integrate indigenous midwives into the official health care program. I describe the government's motives for setting up a training program for

indigenous midwives, the cultural and social constitution of birth practices and midwives' roles in rural Nicaragua, and the way in which the policies and midwives are engaged in the training. I also discuss the results of the training. My particular interest is to contrast the ideology of the training program and that of the official health care institutions with the perceptions and every-day practices of midwives and women's life-worlds, and to situate both the government policy and the rural birth practices in the socio-economic context of the country. I intend to show that in Nicaragua the midwife training program is strongly directed by economic and political motives of the government, and that reality and the rhetoric in connection with the program do not agree. In other words, the goals are undermined both by the opposition of health professionals, and the social, cultural and economic reality of midwives' practice and women's lives in the villages.

General Background: Political Economy of Nicaragua

In order to examine the midwife training program in Nicaragua one must first understand the changing social and political conditions in the country. I therefore give a brief background summary of the Nicaraguan political and social history in the last ten years, with special emphasis on the effects of political economy on health policies.

The country of Nicaragua borders with Honduras in the north and Costa Rica in the south. Its area is 120,349 km^2 and there are 3,745,031 inhabitants which gives a population density of thirty-one people per km^2 (INEC 1989:11). Geographically the country is divided into two zones by the central mountain range: the Pacific lowlands and

the Atlantic plains. Less than ten percent of the population lives in the tropical eastern zone, thirty percent live in the mountainous central region and the majority in the Pacific zone, where the capital, Managua, is also located. Apart from concentrating in the Pacific zone of the country, the population is also becoming increasingly urbanized. Two thirds of the people live in urban centres (INEC 1989:12), twenty seven percent in Managua alone (IHC 1989:38). Despite this urban migration, Nicaragua continues to be primarily an agricultural country; more than two thirds of its export revenue in 1987 was from coffee, cotton, sugar and beef (INEC 1989:27).

The popular revolution in 1979 by the National Sandinista Liberation Front, Frente Sandinista de Liberación Nacional (FSLN), ended forty five years of oligarchic dictatorship of the Somoza family in Nicaragua. The Somoza government era was marked by repression. There was severe inequality between the small landowning class and the rural and urban poor in access to health care. The majority of government and private health services were concentrated in the urban areas serving mainly the rich and the middle classes (Bossert 1981).

The policies of the Sandinista revolutionary government have been intensively studied by international scholars in the last decade who generally agree that the government has made its most successful advances in connection with health care and social policies (e.g. Bossert 1985, Donahue 1986b, Williams 1987). Scholars have praised the government for its "conscious, flexible, and pragmatic planning," and its ability to mobilize and motivate its population (Williams and McFadden 1989). Although contemporary Nicaragua has attracted the

attention of political scientists, sociologists and specialists of public health (Snarr 1989), there are few anthropological studies of the country. The only notable work to date is by Donahue who has examined the revolutionary process through the study of primary health care planning (Donahue 1986a, 1986b, 1989).

During the decade since the revolution Nicaraguan political economy has passed through three periods each of which has had a different impact on the health sector.[1] During the first period 1979-83 the government made an enormous effort to reconstruct the country that had been devastated both by the previous dictatorship and two years of civil war. The government received extensive multilateral and bilateral aid for the reconstruction efforts. The Sandinista government made an explicit commitment to social, as well as to political and economic, change and it started widespread reforms in production, education, housing and health. These reforms included an agrarian reform, economic nationalization, and decentralization of political decision making, with an emphasis on popular participation. During this period the National Unified Health System, Sistema Nacional Unico de Salud (SNUS), was created. It was based on the principle that all citizens have a right to equal access to health care regardless of their income or the area in which they live, and that the state has the duty to provide the health care. The Ministry of Health, Ministerio de Salud (MINSA), also divided the country into six regional health administration units and three

---

[1] I follow here Donahue's division into three distinct periods of the Nicaraguan political economy, although other authors have divided the same period slightly differently (see e.g. Williams and McFadden 1989).

special health zones[2] (Bossert 1981, 1985; Donahue 1986a, 1989; Williams 1983).

The first period was a time of active popular participation in health care. The government organized extensive popular health education programs and was able to mobilize thousands of people for voluntary immunization and sanitation campaigns (Bossert 1985, Garfield and Vermund 1986). Health policy planners in MINSA, however, were divided between two primary health care strategies: one that emphasized an institutional approach and the other that stressed popular participation, prevention and nonclinical medicine (Donahue 1986a). Both these initiatives entailed the training of community health workers and midwives, which were started during this period.

This period has been described as the "golden age" of Nicaraguan health care. The health conditions improved: vaccination campaigns were able to free the country of polio and diphtheria (Williams and McFadden 1989), and massive anti-malaria drug administration campaigns reached seventy percent of the population and significantly decreased the incidence of malaria (Garfield and Vermund 1986). WHO gave special recognition to Nicaragua as a model for countries seeking to meet the goal of "Health for all by the year 2000" (Donahue 1989).

The second period, 1984-1985, was marked by an intensification of warfare between counterrevolutionaries (contras) that receive extensive financing from the United States and the Sandinista government. The contra war, that had started in 1982, had an increasing impact on the

---

[2] See Figure 1 in Appendix.

economy by causing human and material losses. Health facilities and personnel were specific targets of the contra attacks (Braveman and Siegel 1987). The war caused major disruptions in the basic agricultural economy of the Central zone (Regions I, V, and VI) because cultivators abandoned their fields. In these zones there was also an increase in malnutrition and infant mortality. The debilitating effects of this war were further enhanced by an economic embargo instituted by the United States in 1985.

Increasing defense expenditures undermined the ambitious social programs which were already under way.[3] The government shifted its resources from preventive programs to the medical care of soldiers and civilians, and to the needs of rural refugees. Training efforts shifted from lay health workers to medical specialists whose services required increased investment in specialized equipment. Many of the public health advances started to decline during this period. Vaccination coverage was not as extensive, and health personnel were trying to meet the demand with fewer supplies and medicines (Donahue 1989).

The third period, 1986-89, was characterized by low-intensity warfare and an economy of survival. The government set its goals as follows:

> to guarantee to the people... the basic necessities for survival, adapting strategies of an economy of resistance, having as its fundamental objective assurance of the defense and the economic future of the country (MINSA 1988, quoted by Donahue 1989:263).

---

[3] For an detailed account of the effects of the war on the Nicaraguan social policies, see Williams 1987.

This period was marked by generally deteriorating living standards of the population. For example, between 1983 and 1987 bean consumption fell fifteen percent, meat consumption twenty-seven percent, and milk consumption eleven percent, while the population was growing[4] (IHC 1989:36). In 1988, sixty-two percent of the country's budget went directly to defence (IHC 1989:39). The early advances against infectious diseases were reversed and the rates for malaria, measles and dengue fever have been increasing again since 1985 (Williams 1987:257). Shifts in age structure and migration created a need to reorganize the health care system, because centrally planned allocation of resources was not in tune with changing local needs (Donahue 1989).

During the ten past years the government has been continuously reformulating its policies as it confronted the difficulties of the contra war, the economic embargo, and the internal negotiations of the direction of the government. Today, the country is facing enormous difficulties in trying to stabilize its economy, boosting falling productivity, and keeping the health situation from deteriorating, while its population is growing.[5] Half the population is under fifteen years of age. A typical Nicaraguan woman has 5.5 children, seven in rural areas, sixteen percent of the babies are born to teenage girls, and forty-eight percent of newborns are said to face "inadequate living conditions" (IHC 1989:39). Despite the pressures of war and problems of

---

[4] Nicaragua has one of the highest birth rates in Latin America. In the five year period of 1975-1980 population growth was 33.96 per 1,000 and in 1980-1985 it was 34.52 per 1,000 (INEC 1989:14).

[5] The ethnographic present in this thesis refers to 1989, the time of the research.

economy, health care remains a priority for the government; emphasis is once again given to programs of preventive health, such as yearly vaccination campaigns, and to local primary health care services. General health indicators in the official statistics have kept improving even in the second half of the eighties (See Table 1).

Table 1. Infant Mortality and Life Expectancy in the Five Year Periods of 1975/80, 1980/85, and 1985/90 (INEC 1989:14).

	75/80	80/85	85/90
infant mortality*	92.96	76.44	61.67
life expectancy**	56.26	59.81	63.26

* per 1,000 live births

** in years, at birth

CHAPTER 2. THEORETICAL PERSPECTIVES AND METHODOLOGY

Anthropology of Birth and Midwifery

Obstetrical practices have been thought of until recently as an area of interest limited mainly to biomedical scientists. It is only since the 1970s that birth and midwifery started drawing increased anthropological interest. Before that time anthropologists tended to write about birth practices mainly as a rite of passage in the life cycle[1] (van Gennep 1960). Since then several studies of reproductive practices have appeared (Oakley 1977, Kay 1982, MacCormack 1982, Sargent 1982; 1989, Laderman 1983, Jordan 1983, Browner 1989, Jeffery, Jeffery and Lyon 1989). A number of these studies focus on cultural variations in managing a biologically universal phenomenon (Jordan 1983, MacCormack 1982, Kay 1982). These studies show how birth is embedded in a culture-specific social matrix and how it is nowhere treated as merely a physiological function (Jordan 1983:1). Much of the medical anthropology of birth and midwifery is concerned with the authoritarian status of Western medicine, which is criticized through a comparison of indigenous practices with biomedical ones, and by emphasizing the appropriateness of indigenous practices in their cultural context (Kay 1982, Kitzinger 1982; 1988, Jordan 1983).

Ethnographic accounts of midwifery have tended to emphasize the rationality of indigenous practices. Laderman's study of Malay midwives

---

[1] The lack of anthropological data on birth has been blamed on the male bias of the discipline (Jordan 1983:93).

emphasizes their pragmatism in the face of uncertainty. She examines Malay women's childbirth and nutritional practices in light of the traditional ideology of the humoral system and concludes that people's cultural ideology is insufficient to predict their behaviour. Culture works, according to Laderman, like a basic script that people interpret and from which they make improvisations (Laderman 1983).

Sargent's study of obstetric care among the Bariba in Benin focuses on decision making between available options. Her study demonstrates the significance of cultural context and social relations in decision making and shows why it is rational for women to prefer an indigenous midwife:

> (P)rospective maternity patients and Bariba indigenous practitioners share beliefs, values and role expectations to a greater extent than do Bariba patients and cosmopolitan medical personnel; and this gulf between patients and practitioners deters woman from using clinics and leads to misunderstandings, anxieties and lack of compliance with instructions... (Sargent 1982:163).

Indigenous midwives and pregnant women in Benin share a belief in the threat of witchcraft in childbirth. This congruence of beliefs is absent in a hospital setting where personnel is not aware of signs of witchcraft.

Several of the studies of midwifery and birth are cross-cultural comparisons. Jordan's book compares childbearing practices in three Western societies and in the Yucatan, Mexico (1983). She looks at birth practices as biosocial systems that are defined by societies:

> (A) society's way of conceptualizing birth is the single most powerful indicator of the general shape of its birthing system ... each society produces a systematic configuration of birth practices which are mutually dependent and internally consistent. What makes them dependent and consistent, and furthermore morally right, is the local, culture-specific definition of the event as, for example, a medical procedure (in the United States) (Jordan

1983:34).

Furthermore, Jordan points out that the local culture-specific shared view of birth has an ideological status:

> Whatever the conceptualization of birth may be, that conceptualization powerfully directs the ways in which the physiology of parturition is socially interpreted in the collaborative, consensual doing of birth. At the same time, it determines, serves as justification for, and complementarily, is manifested by, locally invariable features of birth (ibid p.35).

In its emphasis on the shared local view of birth Jordan's systems-approach neglects the possibility of pluralistic obstetrical practices - that other options of care might be available and that women might select them. Jordan describes each of the "birthing systems" as "common-sensically appropriate" in their local contexts without examining their relation to social and economic relations, to women's possibilities to organize care for themselves, and to the distribution of choices of care in a society. According to Keesing, an uncritical view of cultural meanings as equally shared by participants can disguise and mystify the power relations they are embedded in:

> Cultures do not simply constitute webs of significance... they constitute ideologies, disguising human political and economic realities as cosmically ordained... cultural ideologies empower some, subordinate others (Keesing 1987:161).

Equally, "birthing systems" sustain the interests of some and work against the interests of others, but the embeddedness of birth practices in the social, economic and ideological power relations is left unquestioned in Jordan's approach.

The usefulness of cross-cultural comparisons of birth practices is that they relativize Western medical practice and they allow us to see it as a tradition among other medical traditions in the world. The

strongest point in Jordan's work is that she shows that there is cultural variation in biomedicine when she compares biomedical obstetrics in different countries. Yet in general, anthropological and cross-cultural studies of midwifery and birth practices which compare biomedical and indigenous obstetrical practices tend to implicitly or even explicitly promote midwifery and to oppose biomedical dominance in the division of labour in childbirth in the West and in the Third World. The medicalization of childbirth in the Western world is contrasted with the authenticity and effectiveness of indigenous midwives. Some anthropologists have even suggested that dimensions of indigenous practice could be usefully appropriated into biomedical practice to make it more humane.[2]

While a critical approach to the medicalization of life cycle events in Western societies is justified, it is not necessary to draw on indigenous practices elsewhere to make this critique. Medical anthropologists have shown that Western medicine, like all other medical traditions, is culturally constructed and socially determined, and that despite the claims of universality by medical science there is enormous variation within its own practices (Hahn and Gaines 1985; Lock and Gordon 1988). This becomes also clear in Jordan's comparison of North American, Dutch and Swedish biomedical obstetrical practices. A criticism of biomedical practices should be based on an examination of the cultural construction of practices in social context, and drawing on a comparison to indigenous practises is not necessary for this purpose.

---

[2] For example, see the volume edited by Kay (1982) about cross-cultural birth practices.

In summary, anthropological studies of childbirth and midwifery studies have often been crippled by a romanticized view about indigenous medicine, and an acultural view of biomedicine. Biomedicine is treated as the enemy, as a vehicle that spreads inappropriate techniques and a mechanistic world view. Anthropologists studying midwifery practices are often reluctant to acknowledge the limitations of indigenous medical systems and their possible iatrogenesis. Serious assessments of the efficacy of practices are scarce[3] while the appropriateness of these practices in cultural context is emphasized.

Despite the increasing interest of health planners in indigenous midwives as a possible solution to maternity health care problems, anthropological studies of midwife training programs are scarce. The training programs have been criticized for their inappropriate teaching methodologies (Jordan 1989), but midwifery studies that have confronted the larger economic, political and ideological context in which midwives practice, and in which their practice is a target for change, are few. Worsley has pointed out that "treating bodily ills takes place, in any culture, within a 'metamedical' framework of thought" (Worsley 1982:315). Within studies of birth and midwifery the way in which practices are embedded in the "metamedical" framework of ideologies, policies and economy of the society has seldom been critically examined. One of the few examples of a comprehensive approach is by Sargent. Her discussion on the prospects for indigenous medicine in Benin situates midwives' practice in the larger context of national health policy

---

[3] Sargent (1982) is one of the few who includes a discussion of the limitations of midwifery practices in Benin.

(1989:194-203).

Within anthropological studies of midwifery and birth practices researchers who have addressed the practice of midwifery in relation to women's roles and status in various societies have taken most comprehensive approach to the issue. Browner (1989) examines the social position of midwives in an egalitarian Chinantec community in Mexico. Women in the community do not want to become midwives because of strong social expectations regarding women's proper place and due to the strong code of egalitarianism which prohibits women from differentiating from their peers and thus from acquiring specialized knowledge.

Jeffery, Jeffery and Lyon (1989) examine North Indian childbearing practices and midwives' work in the context of women's roles and analyze midwifery as a part of the range of medical resources in the society. They emphasize the importance of understanding the way in which the social organization of birth practices reflects women's roles in society. They point out that women's ability to enter into healing roles as well as their access to different kinds of healers and to special knowledge are limited. The social organization conditions the role of indigenous midwives, their pattern of work and their opportunities to develop a specialist status. In North India a birth attendant's work is undesirable and considered polluting, and midwives have no overriding control over the management of deliveries nor opportunities to attain specialist knowledge. The low social position of midwives in this society has made attempts to train them futile (Jeffery, Jeffery and Lyon 1989).

Toward a Critical Approach

Generally, a critical approach in medical anthropology has meant an examination of the political-economic context of sickness and healing (Baer, Singer and Johnsen 1986; Singer, Baer and Lazarus 1990). However, a narrow political-economic approach tends, in its focus on the world capitalist system,

> to depersonalize the subject matter and the content of medical anthropology by focusing on the analysis of social systems and things and... neglecting the particular, the existential, the subjective content of illness, suffering, and healing as lived events and experiences (Scheper-Hughes and Lock 1986:137).

A recent issue of Medical Anthropology Quarterly was dedicated to the theoretical search for a way of combining the examination of political-economic forces and the life-worlds of people through the concepts of ideology and hegemony (Frankenberg 1988). This critical approach highlights the political and ideological nature of all medical systems. As suggested by Bibeau, in a critical analysis, both the choice of direction of development and the politico-economic organization of the country, as well as the every-day lives of individuals, have to be analyzed to reveal the interrelatedness of these dimensions in "thick thinking" (Bibeau 1988:412). The contradictions of policies and practice are often lived out in the every day experiences of the people whom these policies are made to serve. Also, in any study of midwifery the examination of different ideologies and discourses in relation to practices is necessary in order to overcome the dichotomy between indigenous and biomedical birthing techniques. It is also necessary not to limit the study to a comparison of birth practices and "birthing systems" in cultural context, but to situate them into the

context of social and economic power relations.

In this thesis I examine midwifery in Nicaragua not only in the context of the local indigenous medical tradition but also as a part of the country's medical resources. An ethnographic description that is limited to the cultural meaning of the midwives' practice is insufficient in the Nicaraguan context where the economic and political situation is experienced by the midwives in their every day lives. They enjoy a greater government recognition and they suffer from the deteriorating economic situation. Equally, an analysis that treats indigenous and biomedical practices in Nicaragua as parallel systems does not reveal the complexity of their relations. The kind of interactions that exist between indigenous and biomedical traditions cannot be drawn from inherent characteristics of either tradition on their own, because their interaction is affected and mediated by the incentives of the government.

Terminology

The World Health Organization classifies all birth attendants together as "traditional birth attendants" if they assist deliveries but have no "formal" training. Cosminsky, in her review, "Cross-Cultural Perspectives on Midwifery," suggests that the term "midwife" be used in reference to

> a position which has been socially differentiated as a specialized status by the society. Such a person is usually regarded as a specialist and a professional in her own eyes and by her community (1976:231).

In Nicaragua, differentiating a "birth attendant" from a "midwife" is not simple because people demonstrating varying degrees of skills and knowledge are all called parteras. Some of them are healers who know a large variety of herbal cures, and could be called specialists, but the majority are known for the more purely technical experience of assisting births. Some parteras are not "traditional" at all as their practice is based on some degree of biomedical training. I include in my study women who claim to be and are known to be parteras by other people, whether they can be considered specialists or not. This, I believe, is a more accurate representation of Nicaraguan parteras than one obtained by selecting only women with a specialist status, which would leave out the majority of the parteras and would give a very narrow view of childbirth practices. My selection of parteras also represents the group that attends the government midwife training programs. Thus, in this study, midwife refers to partera in a similar way to which the word is used in Nicaragua: referring to all persons recognized as birth attendants by their communities.

Methodology

This study is a result of five months of fieldwork in Nicaragua between April and September 1989. I interviewed health authorities both at the national level in the Ministry of Health (Ministerio de Salud, MINSA) and in the regional level both in Regions I (Estelí) and III (Managua). I also interviewed officials in the Pan-American Health Organization (PAHO) and in United Nations Fund for Population Activities (UNFPA). Health authorities at all levels of the bureaucracy were

extremely helpful and cooperative. I had access to MINSA's documentation center for policy and statistical information.

I participated in a training course for midwives organized by the Ministry of Health in Region I, and attended two meetings of another course in Region III. I also attended the monthly meetings of the trained midwives of Estelí in the regional training center between May and August. I interviewed thirty-eight midwives both in urban neighbourhoods and rural communities. Most of them were listed in the training center's files; only four had not been trained. The interviews gave me a good general understanding of the midwives' work and family backgrounds, and their working methods and knowledge as they themselves presented them.

It soon became clear that it would be difficult to observe midwives assisting births. Most of the women see only two or three births a month - and even though I lived in an urban midwife's family for over a month I only managed to be present at two births that she assisted. Nevertheless, by staying with her I was able to observe other activities and have informal discussions with her.

I collected maternity histories of thirty-three young mothers in a rural community, conducting interviews with women about birth and childbearing. The maternity histories covered pregnancies, child spacing, child deaths, and family planning. In addition I interviewed doctors and nurses involved in maternity health care in three local health centres in the town of Estelí, in five other health centres and posts in the region, and in the regional hospital 'Alejandro Dávila Bolaños' in Estelí.

Setting of the Study

Region I (Estelí, Madriz, Nueva Segovia), in North Western Nicaragua was chosen as the area for the study because of the relatively long experience that the area has with a midwife training program. There also is a permanent training center for midwives in the regional capital, Estelí. Moreover the area was recommended by Nicaraguan health officials because of the strong popular involvement in health issues in the area.

The region has a predominantly mestizo population of 389,768 inhabitants (INEC 1989). The economy of the area is almost completely agricultural, based on staple food crops of corn and beans, and the production of coffee, sugar cane, tobacco and meat for national and international markets both by individual small farmers and farming cooperatives. The biggest employer in the region is the state owned tobacco company.

The village of Valle[4] was chosen as a village study site because there are four trained midwives in the village and a government health post with a permanent auxiliary nurse. Access to other biomedical health services in the village is also reasonable as it is situated about thirty kilometres (two hours in a four-wheel-drive vehicle) away from the regional capital. There are approximately 160 houses with about one thousand inhabitants. It is surrounded by hilly farm lands which before the Sandinista revolution formed three large haciendas. There are now three farming cooperatives with about 100 members altogether.

---

[4] A pseudonym.

The largest cooperative sells sugar cane, and the two others raise cattle. All of the cooperatives produce basic grains and milk for the consumption of the cooperative members. The rest of household heads are agricultural labourers or individual farmers with small landholdings.

CHAPTER 3. BIRTH OF A MIDWIFE TRAINING PROGRAM

In this chapter I examine the motives of the Nicaraguan government to include a midwife training program into its health policies. I first give a brief summary of the conditions that were inherited from the previous government. Then I discuss the health policies of the Sandinistas with special attention to the use of non-professional health workers in general and especially to the development of the midwife training program in the framework of the revolutionary ideology of the government.

The Somoza Era

The forty-five years of oligarchy by the Somoza family were marked by a class division in access to health care, and by health conditions of the majority of the population that were among the worst in Latin America. Life expectancy was 53 years and infant mortality was estimated between 120 and 146 per 1,000 live births.[1] Sixty-six percent of children under five years of age were estimated to have some degree of malnutrition. There were high prevalence of and death rates from easily preventable diseases such as measles and tetanus (Bossert 1985:350-351; Escudero 1980:647).

Reflecting the unequal income distribution and social conditions,

---

[1] These figures refer to time period 1974-77 (Bossert 1985:350). In 1966-67 infant mortality was estimated to be 121 per 1,000, and mortality of children under two years of age 149 per 1,000 (Escudero 1980:647).

seventy-five percent of the population were excluded from access to formal biomedical health care (Williams 1983:288). These people depended on the readily available indigenous medical tradition including curanderos (healers), bonesetters, masseuses, herbalists and parteras (midwives) who were main resources for health care. Traditional practitioners served people mainly in the country side but also in poor urban neighbourhoods (Williams 1983:288-290). Apart from indigenous specialists, knowledge about local medicinal plants was, and continues to be, widespread among the population, especially among the women (CNMPT n.d.).

The relationship between indigenous and biomedical practitioners reflected the social relations of the groups that they mainly served; biomedicine was the medicine of the urban upper and middle classes, traditional medicine that of the poor. This relationship has been described as that of avoidance and mistrust (CNMPT n.d.). In the eyes of the Somoza government the indigenous practitioners were connected to the popular liberation front. During the years of insurrection several midwives were killed by the national guard because they were suspected of helping the guerrillas.[2]

---

[2] This came up in several of my interviews with the midwives in Region I.

Sandinistas: "Revolution Is Health"[3]

After the 1979 popular revolution the Sandinista government started a major reform in the health care organization of Nicaragua. With a mandate from the great majority of the population the government made a commitment to improve the social conditions of the people. The new principle was that health care is everybody's right, and a duty of the state to provide. Since the beginning SNUS, Sistema Nacional Unico de Salud (Unified National Health System), was based on

> a new concept of health, where the people develop by means of their own efforts their capacity to produce basic health, which requires not so much institutions, doctors, medicines, nor huge budget, but rather popular education and community organization to produce maternal infant health, occupational health, improving working conditions; preventive medicine with immunization campaigns against polio, DPT, measles, etc... (Ministerio de Planificación 1981, quoted by Williams 1983:290-291, emphasis added).

The "new concept of health" meant using lay health workers as a way of expanding health care coverage to a larger part of the population. The new government was able to mobilize thousands of volunteers from neighbourhood committees, women's, workers' and students' organizations[4] to work in jornadas de salud, "popular health days," that were organized to take care of vaccination campaigns,

---

[3] Slogan on the walls of health centres in the first years of revolution (Bossert 1981:225).

[4] The most important mass organizations that have been involved in health campaigns include: CDSs (The Sandinista Defense Committees), AMNLAE (The National Women's Organization "Luisa Amanda Espinoza"), JS 19 de Julio (The Sandinista Youth organization "19th of July"), MPS (The Civilian Defence Militia), ATC (Rural Workers Association), ANDEN (National Teachers' Association), among others (Garfield and Vermund 1986).

environmental sanitation, and eradication of malaria and dengue fever[5] (Bossert 1985, Garfield and Vermund 1986). The government also trained thousands of brigadistas, popular health workers, who worked on a permanent basis under the supervision of professional health workers.

The use of volunteer brigadistas and mass organizations as an important source of labour within SNUS was not only coherent with the political principles of the revolution, but also an economical alternative to health care based on professional services:

> Such a strategy ... is a "cost-efficient" way to deal with malnutrition, diseases preventable by vaccination, the bulk of maternal-child problems, malaria, and tuberculosis. As an extra benefit, this type an investment would further politically strengthen and technically train the recently victorious organized people of Nicaragua (Escudero 1980:652).

From the beginning the popular involvement in health campaigns and programs was coordinated by MINSA. Despite the emphasis of health planning on popular participation, there were quite severe disputes and constant negotiations between the biomedical health professionals and health planners with a political mandate about the role of popular participation and the direction of primary health care. The biomedically trained health planners were willing to include lay health workers as substitutes for professional care that the country was not able to afford, while political planners wanted to extend the participation of lay health workers into control and decision making as

---

[5] Five "popular health days" involved more than 30,000 volunteers who gave more than one million doses of vaccines against polio, tetanus, diphtheria and measles in three separate phases (Bossert 1985:356). Volunteers also distributed eight million packets of anti-malarial medicine to about seventy percent of the population in a massive malaria control project in 1981 (Garfield and Vermund 1986:869).

well (Donahue 1986a). Yet, the hierarchy within the health care system remained based on biomedical knowledge placing lay workers at the bottom of the rank. It has been suggested that the brigadistas were an underutilized resource in local health centres because they were used as extensions of the institutional care under professional control (Scholl 1985).

With increasing economic difficulties affecting people's daily lives, the initially impressive popular participation was diminishing toward the end of the eighties. Five Popular Health Coordinators (Responsables de Salud) in the poor neighbourhoods of Estelí noted to me that they could only count on the help of about one-fifth of the number of volunteers they had when the health campaigns started.

Maternity Health Services: Official Sector

From the beginning of SNUS the focus of maternal health services was to provide every woman with the possibility of giving birth in a hospital. This was soon realized to be an impossible task due to the rising birth rate and the shortage of hospital facilities. Hospitals have covered less than half of all births in the country since the revolution.[6] The only maternity hospital in Managua has constantly been flooded with patients since the abolition of hospital fees at the time

---

[6] In 1987 forty-five percent of all births were hospitalized, fifty-five percent took place at home. Seventy-eight percent of home births were assisted by indigenous midwives, three percent by health professionals and eighteen percent were without assistance or assisted by a family member (MINSA 1986).

of the creation of SNUS.[7] All regional and local hospitals and also some of the rural health centres have facilities to assist births, but women in the country side have kept seeking indigenous midwives for births.

The maternity care wards have suffered constantly from a lack of staff and materials as well as with overcrowding of patients, and with tightening health expenditures the situation has become worse. The work load has also pressured the staff for speeding up births. In a national assessment study in 1986 the standard hospitalization time for normal uncomplicated births was found to be less than one day in all major hospitals in the country. In the same study attention was drawn to the number of interventions done in hospital births: episiotomies were routine for primiparas; intravenous medication was used in 10.6 % of cases to induce labour. Hospital births were assisted by doctors in only 45.3 % of the cases. The remainder of the cases were assisted by nurses, auxiliary nurses or by family members[8] (MINSA 1986).

---

[7] According to unofficial estimates of the Director of MINSA in Region III (Managua) eighty percent of all births in Managua took place in hospitals in 1988.

[8] Family members assisted 1.3 % of hospital births.

"Strengthening" Traditional Services: Midwife Training

> Nuestras manos con amor y fuerza daran vida al hombre nuevo. (Our hands, with love and strength, will give birth to the new man.)[9]

Faced with the impossibility of providing all pregnant women in the country with a hospital bed to give birth in, the health planners turned their attention to indigenous midwives. After all, they were already providing an important health care service by taking care of over half of the births in the country.[10] Also, the evidence from rural areas showed that women would not resort to hospitals for birth even when given the possibility. Although the services of the official sector were made more accessible to the rural women, they preferred home births. Health officials explained this by the lack of education of the rural women.[11]

Yet the Nicaraguan midwife training program was started not only for economic, but for strong ideological reasons. The revolutionary government saw the midwives as true representatives of the masses, of the popular front that had been crucial in the success of the overthrow of the old regime. Parteras were an embodiment of popular culture that had been repressed during the oligarchic regime of Somoza. By giving

---

[9] Mural at the entrance to the midwife training centre in Estelí.

[10] In 1986 55 % of all births in the country were homebirths and parteras assisted 72 % of homebirths (MINSA 1986).

[11] MINSA built rural health centres with beds that could also used for births. However, the beds were used only up to thirty percent of the estimated need for childbirth (Jimenez 1989).

the midwives an official position in the health care system, the Sandinistas wanted to show their respect to the popular roots of the revolutionary movement. Symbolically the midwives could help to give birth to hombre nuevo, a new generation of Nicaraguans.

The cult of the new generation was an ideological construct of the revolutionary leadership,[12] and can be found in the words of the Minister of the Interior, comandante Tomás Borge when he addressed the first national congress of parteras in 1983:

> In spite of the war and the menace of a greater war we continue to dream about the rebirth of life... we want to express to the parteras our affectionate greetings; they are a symbol (of Nicaragua), el país de partos, (the land of births) (Neumann 1986:37).

Borge presented the midwives as symbolic birth attendants to the new generation of men and women who are ready to discard the old values of the time of the oligarchy, and to cherish the goals of the popular revolution. The invitation to indigenous midwives to become part of the new national health care system was a building block for a national identity of the 'new generation' that respects its roots among the rural population.[13]

The government had thus a strong political and economic motivation to integrate midwives, but the indigenous premise of their practice was felt as contradictory to the biomedical basis of the health care system.

---

[12] The 'New Man' cult is part of the ideology of the popular revolution which has its personification in a mixture of Che Guevara and Jesus Christ, a person who is willing to sacrifice personal ambitions for the good of others, is modest, even ascetic (Hodges 1986:256-264).

[13] The health educators in the midwife training center also referred to the fact that several of the comandantes were born with the help of a traditional midwife.

Thus the training program was to transform indigenous midwives into volunteer health workers for the government.[14] The health officials did not plan integration as a recognition of indigenous medicine as such, but as a recognition of its practitioners, the midwives. The underlying idea under the training was, as in most countries with similar programs, to teach the midwives to work within a biomedical framework, which would make their practice acceptable by biomedical standards.

The first Handbook of Traditional Midwives stated in a very straightforward fashion that the goals of midwife training were measurable medical goals: the reduction of infant mortality by means of eradicating neonatal tetanus (MINSA 1982). The handbook presented the midwife's role as a primary health care worker involved in all MINSA's projects of maternal and infant health care. With the training she was to be able to educate people about the use of health care services, to participate in vaccination campaigns and other health campaigns, and of course to take care of normal births, but only if women have cooperated with their ante-natal check-ups. Apart from her health activities the midwife also had a political role in the community. She was presented as a leader of her community who could easily become a trusted popular leader in matters of health, and who could work as a link between the population and the official health care (MINSA 1982).

With increasing economic difficulties in the country during the contra war Ministry documents increasingly emphasize the economic

---

[14] The government got also extensive financial aid for the midwife training program through UNFPA (United Nations Fund for Population Activities) as multilateral aid from Finland, Italy and Norway (Guzman 1989).

rationality of including midwives into the official health care system as substitutes for biomedical care:

> The assistance of births at home (by parteras) relates to folkways that are difficult to modify, to geographical problems of accessibility, and to the limited capacity and resources of the (official) sector. These factors make necessary the redefinition of (assistance by parteras), at least for now, as the primary level of health care (MINSA 1986:87).

Conclusion: A Policy with Built-in Contradictions

In the Somoza time there had been a clear class division between the users of indigenous and biomedical health services. The Sandinistas created a health care system that was to provide to all people what had been a privilege of the rich and upper classes under the previous regime: formal biomedical care. Yet, at the same time the government had a popular mandate to respect the popular culture and to allow popular participation in health. Thus, the reasons for including the integration of both lay health workers, brigadistas and indigenous midwives, parteras into the official health care system were largely ideological, as well as economic.

The two goals, biomedical health care and popular participation, were combined in the ideological basis of the training programs which lead to built-in ambiguities. The biomedically trained planners in MINSA rationalized the training in terms of economic factors, as a temporary -- albeit quite long -- stage before both lay health workers and midwives could be substituted with medically trained health professionals. They conceived of parteras and brigadistas as lay volunteers acting under the control of health professionals. The

political planners in MINSA conceived of parteras and brigadistas as representatives of the revolutionary participatory spirit of the population. They wanted to promote more of a popular input into health matters which was manifested by spontaneous volunteering for health campaigns.

The fact that parteras and brigadistas were treated as one category of health workers shows that the empirical knowledge and skills of indigenous midwives were not given more than lip service in the policies. Both political and biomedical planners agreed that their practice should be upgraded with biomedical training. The political planners promoted training as an opportunity for the parteras to improve themselves and participate formally in health care, while biomedical planners emphasized the need to improve the quality of the working methods of the midwives. Both agreed that the training would be beneficial for the women that seek the services of the midwives. Yet, all the efforts were targeted to changing midwives while no plans were made to re-educate the health care professionals about the new role of the midwives in the system.

In summary, the midwife training program was instituted at a time when the Sandinistas could mobilize strong popular participation in health. The government was in the process of defining its own direction between institutional and popular based health care. As a result the Ministry favoured the integration of parteras as practitioners into the health care system, but it was not ready to acknowledge the indigenous practices of the parteras as part of the system because these practices were conceived of as contradictory to the biomedical basis of the health

care policy.[15] As one regional MINSA officer expressed it:

> We cannot politically change our course to recommending traditional practices. That would be contradictory as we have just taught the population that they have a right to western medicine.[16]

---

[15] MINSA has a similar policy towards traditional herbal medicine. The Ministry has started a research program to investigate the proper use of herbal medicine as supplements to biomedical medicaments to alleviate shortages of drugs, but it is not ready to acknowledge traditional herbal medicine as part of official practice (Viisainen, in press).

[16] Fieldnotes, August 17th 1989.

CHAPTER 4. PREGNANCY AND BIRTH IN A NICARAGUAN VILLAGE

In this chapter I describe birth practices in rural Nicaragua where the majority of indigenous midwives practice. Understanding rural women's conceptualization of birth is necessary for situating midwives' knowledge and practice into its cultural and social context. Birth practices are interwoven with cultural ideologies and domestic and state politics which influence the way in which women perceive birth and the kind of maternity care services offered to them.

The following description of birth practices in rural Nicaragua is based on interviews with thirty-three village women of reproductive age in the village of Valle and with thirty-eight midwives in Region I. I first discuss the importance of motherhood in Nicaraguan society and in women's lives. I also include a short introduction to the Mesoamerican humoral tradition before describing the birth practices because many of the practices are influenced by this medical tradition.

The Context of Motherhood in Nicaragua

Motherhood is seen as the natural role of women in Nicaraguan society. Many influential women's organizations are mothers' organizations. The most well known of them is "Madres de Héroes y Mártires" ("Mothers of Heroes and Martyrs"), an organization of mothers whose sons or daughters have died in the insurrection or contra wars. Mothers get compensation payments if they lose their sons in the war. For the tenth anniversary of the revolution in July 1989, President

Ortega announced that all homeless mothers of heroes and martyrs would be given a house by the state, wives were not acknowledged in a similar way. The strong connection between mothers and children is recognized also by comandante Doris Tijerino as the motive for many women to support the FSLN: "Mothers support their children" (Sóla and Trayner 1988:9).

Women themselves, reflecting society at large, consider having children as a natural and necessary event in a woman's life and a normal step to adulthood. Women in Nicaragua start their childbearing careers early, often in their adolescence, and have an average of five to seven children in their lifetime (INEC 1989). It is still rare in the country side to see a woman in her twenties who does not have any children, for example, in Valle the average age for a first birth is 18.5 years. Even though there are contraceptives available they are rarely used before the birth of the first child.[1]

An increasing number of women are also single mothers. Twenty-eight percent of Nicaraguan households are headed by women (Deere 1983). Among the rural population and the urban working class there seems to be no rejection of young mothers with fatherless children by their families or by the community.[2] A great number of young single mothers live with

---

[1] Women can get birth control pills free of charge at the health posts, a month's supply at a time. There are frequent shortages in the supply - the health post nurse estimated that she can only serve two-thirds of the need and in the last years the post has not had any pills for distribution during several months of the year. The health post nurses confirmed that the great majority of their clients seeking contraception are women who already have one or two children.

[2] A woman who has several children from different fathers and has not lived with the men is considered vaga (idle) and irresponsible.

their parents rather than on their own, or alternatively their children are in the care of the grandparents if the mother lives and works elsewhere. Women constantly point out that their relationship with their own kin is more important than a conjugal relationship. Cándida's story is a revealing example:

> Cándida, 22, is a single mother of a five year old girl. She got together with the father of her child when she was fifteen and had a child at seventeen. She calls the man a mujerero (womanizer). He had another child with another woman about the same time as Cándida's baby was born and Cándida decided to leave him. She came back to live with her mother for a while but then went back to school to finish her teacher's certificate. Her mother took care of the child while Cándida was doing her social service in a remote community. She was only able to come home for the weekends. She is hoping to get a job in the village school, but if she has to go to town to work, her daughter will stay with Cándida's mother. She has not received any support from the father of the child who has moved to the United States. "One is better off with one's own family than with a man. You can never trust a man," says Cándida's mother, who herself was abandoned by her husband for another woman after eight children and twenty-five years of marriage.

Fertility rates in Nicaragua are among the highest in Latin America. Among the generation of today's grandmothers women have often had over ten children in their lifetime. The number of children is a source of a certain pride among the older women. When I asked the number of their children the older women invariably included all stillbirths and miscarriages into their total number of children.[3] In Valle, however, younger women's attitudes towards large families are changing.

> Before there were mothers with sixteen or twenty children, today a family of five is big. I have six children and had an operation

---

[3] Large families also get positive attention in the media. The local radio station in Estelí announced a special mother's day search for the woman with the greatest number of living children. A woman with twenty-four children won the prize.

(sterilization) and I feel good about it (wv18,[4] 34 years, 6 births).

Three children - enough! We hardly have enough to eat (wv10, 28 years, 3 births).

My daughter only has two children after five years of marriage and the pills are ruining her. But what can you do, in this poverty that we live in? - The Lord has helped us and has not taken any (children) away (wv13, 38 years, 9 births).

Children are important they help you when you are old. This son of mine wants to study, and will help me when he is an adult (wv15, 21 years, single mother of three).

The young women in Valle favour a smaller family than that of their mothers. Almost invariably the women prefer a family of three or four and want to use some kind of contraception. They all mention the difficult economic situation as a reason for not wanting more children. The thirty-three women interviewed in Valle (average age of twenty-seven years) have on average 3.2 children (3.7 pregnancies) each. Women over thirty had larger families, on average 4.5 children, in contrast to women still younger than thirty who only had two children each. It is, of course, still possible that the younger women will have a family of six or seven by the end of their fertile period but is becoming more and more unlikely given the tight economic situation that the women face.

Children Are Women's Work

The women in Valle do not do farm work.[5] There is a strict

---

[4] Wv1-wv33 are code names for the women interviewed in Valle.

[5] All but one of the cooperative members are men. One woman has been given the status of a member by agreement of the other members, when her husband died and her son was too young to continue his fathers work. The widow was allowed to be a member on the condition that she

division of labour between men who work in the fields and women who work at home. Women grind corn, make tortillas, cook, wash, clean, iron and raise the children. A few years ago there was a sewing cooperative for the women set in place with international funding, but it died out due to material shortages, and running the cooperative became too costly. Only during the years of heaviest war activities, when a large number of men were drafted, did women take the place of men in the cooperatives. They also participated in armed vigilance of the village. Now, as times are more peaceful in the area, men have returned to the fields and women stay at home.[6]

The women are in charge of child care.[7] Invariably, when a couple separates, the children stay with their mother, or if the mother dies, the children are given to the grandmother or another female relative. Although women are entitled to child support after separation, very few women file their claim to INSSBI (National Institute of Social Security and Welfare) if the man fails to pay voluntarily.

> My mother says I am better off with my own family than begging him for support. And if he would pay then he could come and bother me again, and what if I had another child? - No, it is better to stay away from him (wv2, 17 years, one child).

---

provide a man's labour daily to the cooperative. She has managed this by hiring a man to work for her, until her son grows up.

[6] The last large scale contra attack in the area was in 1986. War activity was restricted to less accessible areas in the northeastern part of the region at the time of my research.

[7] One man's answer to the question how many children he had represents the relationship between fathers and children: "Me tienen ocho" (They have eight children for me). The answer reflects the fact that children are considered to belong to the mother, and that the man has children with several women.

As with child care, everything related to birth lies in the women's realm. Even though husbands are sometimes present and can even assist at birth, decisions about birth and related practices are almost invariably made by women. The women, their mothers, and midwives all use their own life experience and knowledge passed on by their mothers to determine the right course of action. While having several children is a cause of pride and prestige for women, giving birth alone or assisting at births are considered signs of courage (valor) and strength.

Humoral Tradition

Nicaraguan indigenous medicine is part of the Mesoamerican humoral tradition,[8] the origins of which have been a source of debate between scholars.[9] The Mesoamerican humoral tradition conceives of health and illness as a delicate balance between 'hot' and 'cold' elements both in the body and its environment. Illness causation is explained by a disruption in the balance, and illness, therefore, can be prevented by taking care to maintain a balance between the elements, thus avoiding

---

[8] Humoral medicine is not the only type of traditional medicine in Nicaragua, there is a large number of faith healers, bonesetters and masseuses. My discussion here is, however, limited to humoral medicine.

[9] Foster argues that the humoral system in the New World derives from the Hippocratic-Galenic theory prevalent in Europe at the time of the conquest (Foster 1953, 1987). In opposition, López Austin argues for the existence of an "indigenous dual cosmovision" before colonial times (López Austin 1980:303-318). He, and other scholars, propose that Mesoamerican humoral medicine is a syncretic combination of both from Pre-colombian indigenous and Spanish colonial elements in its present form (Colson and de Armellada 1983; Messer 1987; Ortiz de Montellano 1989).

exceeds of 'hot' or 'cold', or abrupt changes. Much of the popular tradition based on the humoral system deals with preventive practices. Practices, such as for example avoiding drinking fruit juices ('cold') when excited ('hot') because the abrupt change in the balance of elements would cause an illness. When illnesses occur they can be corrected by carefully increasing the effect of the counter element, by using herbal remedies and 'hot' or 'cold' foods (Dávila Bolaños 1974, López Austin 1984). Humoral tradition is known to be especially women's knowledge among other Mesoamerican cultures (Cosminsky 1977; Kay and Yoder 1987). In Nicaragua as well, much of healing in families is done by mothers and grandmothers many of whom follow principles of the humoral tradition. This tradition is also pertinent to women's popular knowledge about birth.

Pregnancy

Although the popular expression for pregnancy is estar enferma (to be ill) pregnancy is considered to require few changes in behaviour. Most women eat their regular diet,[10] and work until the very last days before birth. If they have problems during pregnancy they consult their mother, or one of the local midwives who can give advise on herbal remedies for nausea or premature contractions, and can diagnose the position of the baby by massaging the belly of the pregnant woman. Midwives diagnose most troubles during pregnancy to be due to the position of the fetus. They are thought to be healed by correcting the

[10] Some midwives suggest limiting excessive 'hot' foods during pregnancy.

position by a massage. Most midwives are careful not to massage before the sixth month of pregnancy, because an earlier intervention is believed to cause a miscarriage. Even if women have no problems with their pregnancies they usually visit the midwife in the seventh or eighth month for a sobada, a massage, during which the midwife diagnoses the position of the baby. This is considered the optimum time to turn the fetus if it is found to be transverse or breech.

Women in Valle are also increasingly going to the government health post for ante-natal check-ups. This is due to the activity of the health post nurse, Marta,[11] who as a native of the village herself knows all the women in the village, and makes home visits if women known to be pregnant do not come to the post. Only two or three women in the village have refused her check-ups, she says. Visits to the health post rarely correspond to any immediate needs of the pregnant women, but most women believe that the distribution of vitamins and tetanus injections are worth going for. Marta checks the women for obstetrical risk factors and gives referrals to the regional hospital thirty kilometres away in case of risky pregnancies or complications.

Birth - a Matter of Courage

A typical birth in Valle takes place in the woman's own home. If a woman is married her husband may be present at birth, but more often it is the woman's mother. When a young woman gives birth for the first time, she asks her mother to come or travels to her mother's home to

---

[11] A pseudonym.

give birth if she does not live with her parents. Some women might also give birth with their mother-in-law present. The older woman's advice is taken in connection with choosing the midwife and for proper behaviour during birth. Most young women are not told details about birth until labour starts. The older women are in charge.

In Marta's records only twenty percent of birth certificates given at her health post between January and August 1989 were for hospital births. (See Table 2.) Although there are four midwives in the village, half of the women who gave birth at home had done so alone or with a family member, without any help from trained midwives.

Table 2. Birth Locations According to Certificates Given At Valle Health Post 1987-89.

	1987	1988	1989*
Home births			
- with partera	20	20	12
- alone or with family member	17	24	12
Hospital births**	-	5	6
Total	37	49	30

* Between January and August

** The health post only started giving birth certificates to children born in hospital during 1988.

The reason that not all women seek midwives is that women consider birth to be such an ordinary thing in women's lives that they can handle it alone. Young women rely on their mother to make the decision about asking a midwife. The older and more experienced the woman is at childbirth the more likely she is to give birth alone.[12]

[12] Of course, some woman especially in the more remote areas end up giving birth alone simply because the midwife does not make it in time.

> I have given birth nine times, what would Doña Aurelia[13] know that I wouldn't know? (wv25, 35 years, six births)
>
> My husband was away and I felt ashamed to wake up the kids for this (to call the midwife) so I had the baby alone. I had courage. I cut the cord with a razor blade, and took some beer and water with lemon (wv13, 38 years, 9 births).
>
> I had my baby alone as the midwife did not make it in time. I was not afraid, it was very fast, and after all I knew it all already as this was my second child (wv17, 19 years, 2 births).

Women's attitude to birth is that it will ultimately turn out well if the woman has valor (courage) and the midwife intelligencia (wisdom).

> The partera gave me valor, otherwise I could not have got through (wv7, 30 years, 3 births).

Managing Birth

> In the first phase of the birth, when pains are light, I do not give (the woman) anything. In the second phase, when pains get stronger, I prepare the tea of lemon and chamomile. In the third phase, when the baby is already crowning, if the woman gets cold (cowardly) I give her one egg white with a little bit of beer, the woman gets warmer, gets strength and, ¡ya! the baby comes fast (Doña Telma).

The parturient woman is encouraged to move around in the room to make the pains easier, and she is given herbal tea prepared from lemon leaves and chamomile. The ingredients for tea are usually ready before the midwife comes, and the medicine itself is often prepared by the woman's mother.[14] Some midwives also use root of lemon tree, which is considered stronger and enhances contractions more than the leaves.

---

[13] All names of informants are pseudonyms; "Doña" refers to midwives.

[14] This tea is also used as a diagnostic to confirm whether or not the contractions are real, if a woman has contractions at seven months of pregnancy and she is given this tea, the pains will go away, the midwives say.

The most important task of the midwife during labour is to help the woman carry it through. She has to give the woman valor, courage and bravery to endure the experience. This is described, both by women and midwives, as the most important feature of the midwife herself: she is expected to be courageous and brave, and these are the characteristics which separate her from other women. A partera cannot be afraid. Midwives often refer to courage in their first experiences of helping other women:

> I had to help my sister out of necessity, and as other women found out that I was not afraid, they would ask me to come (Doña Trinidad).

No specific talent, nor specific knowledge is regarded as important as the courage of the midwife.

The umbilical cord is usually not cut until the afterbirth is delivered. This is because women fear that if cut, the placenta can "wander" to other parts of the body. The midwife cuts the umbilical cord with the scissors she has in her midwifery kit,[15] or with whatever is provided by the house. Some mothers want the cord to be cut with a heated machete, the traditional way, and midwives often follow the wishes of their clients. The umbilical stump is tied, cleaned with alcohol and thimerosal, and covered with a clean piece of cloth. Even if the women have given birth alone, they often ask the midwife to come and cut the cord for them. This is considered a special skill of midwives. A perfect navel can even be a sign of a midwife's talent:

---

[15] Midwives are given kits at the end of their training courses. These kits are strong shoulder bags that include basic obstetric equipment: a plastic apron, a plastic sheet, scissors, steel bowls, soap, a handbrush, cotton, string and rubbing alcohol.

"All the children I have treated have beautiful navels" (Doña Aurelia).

After the birth, the woman is given mistela, a concoction of rum, honey and spices.[16] The mother or mother-in-law is in charge of preparing it. The midwife might also prepare mistela if the ingredients are provided. The mistela is considered a way of purifying the inside of the body after the birth. The newborn is also considered to need purification after birth. The baby can be given a cloth dipped in an infusion made of cumin and honey, or it can be placed directly to its mothers breast. Colostrum, mother's first milk, is considered a strong purgative, and thus a purifying agent, and is seen as favourable for the baby.[17]

Mishaps During Birth

Most midwives when asked to recall difficult births would refer to prolonged ones, and would explain that they were prolonged because the woman had no courage and was cowardly. Having fear is more understandable if the woman is young and primipara, but not if she already has had several births.

> Señoras should not fuss around, they know what this is all about (Doña Olga).

---

[16] The most commonly used spices are cinnamon, allspice, dill, oregano, and rosemary.

[17] Breastfeeding is usually started right at birth, but bottlefeeding is added as soon as three days after the birth. The majority of the women use mixed breast and bottle feeding for their children. They believe that if one does not start bottle feeding early, the child will reject the bottle later.

If the birth is prolonged the midwife can give the woman black coffee, or herbs, or she can also press the fundus of the uterus in order to 'force' the baby down. Mishaps during the birth process are taken as something that naturally occurs, and are often explained by the weakness of the newborn.

> Some babies are born dead, or are weak and will not survive, but that is not partera's fault (Doña Telma).

All midwives said that a baby had never died in their hands, but that some of them had assisted the birth of dead babies. The midwife is not to blame for a misfortune. If the baby is born with breathing difficulties, the midwives clean its mouth and tap its shoulders, or spray water on its face to encourage breathing.

A delay in the afterbirth is considered a danger by midwives, and several of them have stories about how they had successfully released a placenta that "was stuck" (pegada). Methods most commonly used are a careful massage of the uterus and herbal infusions. If these are not effective, some other methods might be tried, like drinking bitter black coffee, taking ricin oil or pressing a few grains of salt in the woman's hands. An undelivered placenta is the most common reason for midwives to send parturient women to the hospital.

Post-Partum Period: One Has to Take Care of Oneself

Many of the beliefs and practices related to birth are explained by the knowledgeable midwives with reference to the humoral medical tradition. Within the humoral tradition birth is considered to leave a

woman's body 'cold'.[18] Midwives explain that the coldness is due to the great open wound that is created inside the mother's body when the baby and placenta are born. Also, in the popular conceptualization of the female anatomy there is a connection between the digestive track and the uterus, and foods can effect the ailing wound directly. In order to ensure proper healing of the body after birth all remedies and foods have to be hot, and a period of dieta (diet and work restrictions) is needed.

The strictest indigenous diet is a forty day regimen of tortillas, cuajada (fresh cheese) and pinol (a corn and chocolate drink). Cuajada and pinol are considered 'hot', while tortillas are neither 'hot' nor 'cold'. Mistela is the only drink allowed during the first eight days, after which warm boiled water can be consumed. The women should not eat any fresh fruit, eggs, fish, or vegetables, because they are considered 'cold' foods. Several of the grandmothers in the village, and the older midwives state that they followed such a diet after giving birth. When followed to the extreme, the regimen required women to be closed in the room where they gave birth, and to cover their head and ears, and to only eat 'hot' foods. These precautions prevented 'cold' foods and air from affecting the healing of the open wound inside the womb.

Today, women who follow this kind of regimen for forty days are rare in Valle. The indigenous food restrictions do not have the status of a taboo, but are simply considered an ideal norm to be followed. The

---

[18] López Austin refers to the 'coldness' produced by birth as follows: "The baby is warm in its fetal stage and as it is born it withdraws the heat from the mother producing a strong cooling effect in the mother" (1984:20-21).

diet of today is modified to a more straightforward version. The young women, including several of the midwives, do not explain the reasons for following food restrictions in terms of the hot and cold dichotomy but simply in terms of particular foods being known to be harmful.

There are also several ways to get around the restrictions. Eggs are most constantly identified as being harmful to the new mother, explained to cause alterations in blood, or vaginal discharge. Some women, however, claim that eggs are safe to eat if they are fried well rather than boiled. The risk connected to harmful foods is explained in terms of harm to the baby, rather than to the woman: "If one eats avocadoes, the baby gets green diarrhea."

Younger women are also challenging old restrictions: "I have had fifteen days of tortilla, pinol and cuajada, it is so boring. Today I am starting to eat everything," a young 19-year-old mother declares two weeks after her third birth. Some also try eating fruits and vegetables right after birth and conclude that they cause no harm. Others come to other kinds of conclusions:

> I had a tomato two days after birth and I got a terrible stomachache. My mother says that the tomato was too acid for the wound inside me, and she is right (wv6, 19 years, 3 births).

However, following the norms is dependent on the economic possibilities of the family. Poor women simply cannot afford to follow the dietary restrictions. Their normal daily diet consists mainly of beans and rice and they cannot afford the pinol or cuajada for everyday use. Many take the practical attitude, "the poor have to eat what they have, and beans are not so harmful if you fry them well." Times of war have also changed people's experiences:

> I had my baby when we were in the mountains, and the only thing to eat was potatoes. I knew they were very cold and harmful but that is all we had. Gracias a Dios nothing happened to the baby, and after my later births I have eaten everything. Cold foods do not do any harm (wv18, 34 years, six children).

Apart from diet, post-partum regulations include a work restriction for forty days. Today very few women can have this privilege. Poor families cannot afford to hire anybody to take care of household chores, so unless the woman has relatives, most often her mother or sisters, who can come and help her, she has to start cooking and cleaning right after her birth. Women in the rural areas who live closer to their kin have more support from their families and can enjoy a longer rest after childbirth than women in urban neighbourhoods where extended families are less common.

Since the revolution young people in the country side of Nicaragua get more education than their parents did. They are exposed to a variety of sources of information, such as popular health education. They are becoming familiar with biomedical explanations of physiology and nutrition, which has become another explanatory model alongside the indigenous way of dealing with health issues. These explanatory models, however, are neither competitive, nor mutually exclusive. Women use both types of explanation for health and illness, and they do not find them contradictory. For example, when they are in hospital, they eat what is being served under the protection of "strong medicine," but when they come home they follow the diet because there is no other protection at home.

Conclusion: Complementary Practices

The description of birth practices highlights the apparently uniform experiences of the women, which reflect the Mesoamerican humoral tradition in the Nicaraguan countryside. However, it is necessary to point out that although most women recognize, and some of them respect the norms of the humoral tradition, it is not a set of strict rules to be followed. Women have different levels of familiarity with the tradition. Similar to Laderman's findings of flexibility in connection with diet restrictions among rural Malay (1983), the practice of the humoral tradition depends on people's empirical experience, as well as on their economic situation.

Rural birth practices cannot only be examined as reflections of a medical tradition, they are also related to women's roles and their economic situation. For women, giving birth is an important and necessary part of their lives, and their attitude towards birth is pragmatic. The birth practices reflect the fact that women have lived in relative isolation and have had to deal with the risks associated with childbirth using their own resources. The tradition of diet and work regulation provide security against possible misfortunes. The need to rely on one's own strength has made the courage of women and midwives important in dealing with birth. Based on their experience women claim that most births are not risky. One fourth of women in the village give birth without the assistance of midwives or health personnel; for them birth is such a normal part of their lives that they do not want to bother anyone with it. The attitude of the women towards birth is, that with the necessary courage everything will

ultimately go well. Newborn deaths are explained in a naturalistic manner, by attributing it to the weakness of the newborn.

Yet, women do not passively accept this state of affairs as a natural order of things. When they think it is necessary they resort to both indigenous means and modern technology to be able to ensure the health and well-being of themselves and their families. If a health post nurse has detected a risk in pregnancy, most women follow her advice and seek hospital care for birth. Parteras find it more difficult to convince women to go to the hospital, especially if they suspect a problem during pregnancy. If there are complications during labour women usually readily seek means to get to the hospital.

Women use government health services when it serves their interests; the Valle health post has not had enough birth control materials to give to all the women who request them. Women want the security to be able to bring up their children to adulthood by limiting the number of their families. For village women the humoral tradition and modern medical technology are not in conflict but complementary: they can have their children at home, follow dieta, and take contraceptive pills to prevent further pregnancies.

CHAPTER 5. NICARAGUAN MIDWIVES

In this chapter I discuss Nicaraguan midwives who are the target group of the government's training program. I do not intend to build an image of a typical midwife; on the contrary, I bring forth the diversity of the group and their practice in the cultural and social context of the society and show that they are a very heterogeneous group of practitioners.

Who Are Nicaraguan Midwives?

There is relatively little information written about midwives in Nicaragua. The only monograph is the result of a collaboration of international researchers (Luisier 1985). It is worth noting that the people involved in writing the book were influential in setting up the government training program for midwives in two regions: Region I and Region VI. Their pioneering work set the guidelines for the methodology of the training. Thus the image given in this book of traditional midwives represents the way many health educators view the women they train.

The author describes two kinds of midwives: traditional parteras empiricas and urban midwives. The indigenous midwife is presented as a knowledgeable, respected woman who is over forty years old, with no small children and thus able to leave her house to help other women give birth. The voluntary compensation for her services is a sign of reciprocity in a "primitive" society:

> The partera empirica represents a character of the primitive community which recognizes reciprocal aid, a condition for the maintenance and survival of the community. The parteras are a wonderful survival of the community spirit of the past (Luisier 1985:18).

Luisier contrasts the naturalness of childbirth by indigenous midwives to the more medicalized practice of the urban midwives who are characterized as more market oriented, charging a fixed fee and using biomedical products and techniques, including injections, which are "the impediment for a natural childbirth, making women hurry through the process" (ibid. p. 20).

Although Luisier presents two distinct groups of midwives, the training program that she describes is only meant for the traditional parteras empiricas. In her book the urban midwives are left without trainers' attention which, as I will discuss later, is the situation also today.

Furthermore, Luisier's rural--urban, traditional--biomedical, reciprocal--cash-for-service classification unnecessarily dichotomizes the Nicaraguan midwives who, as I will show, have very diverse backgrounds, experiences, knowledge and practices.

The following description of Nicaraguan midwives is based on interviews with thirty-eight midwives in and around the towns of Estelí and Ocotal in Region I. Initially I started with a list provided by the midwife training centre in Estelí which has over sixty women in their files for the area. The sample was opportunistic: I visited midwives who were within a day's trip either by public transportation or on

foot.[1]

Thirteen of the thirty-eight midwives live in urban neighbourhoods, twenty-five live in rural villages and communities. The urban-rural division indicates what kind of background the midwife is likely to have: midwives whose practice is mainly based on biomedical training live and practice mostly in urban areas. Midwives whose practice is based on indigenous and popular knowledge live and practice mostly in rural areas, yet there is a significant number of them also in urban neighbourhoods. (See Table 3.) All but six midwives have resided in the same community all their lives but many practice in a other communities as well.[2]

Table 3. Parteras by residence and background

	urban	rural	total
indigenous	8	24	32
biomedical	5	1	6
total	13	25	38
(has participated in government training)	(13)	(21)	(34)

[1] Thirty-four of the midwives in the sample are from around Estelí, the other four are from the Ocotal area, closer to the Honduran border (see Figure 1 in Appendix).

[2] Two of the traditional midwives in urban areas had moved from the rural areas, both of them frequently went back to their rural community to assist births. One midwife is a refugee from El Salvador who has lived in her community over ten years. One did her nursing training in Honduras where she also worked most of her life but returned at retirement age to Nicaragua. Two midwives live in resettlement farming cooperatives to which they have moved from war struck areas.

1. Age and Marital Status of Midwives

As shown in Table 4 the majority of the midwives interviewed are beyond reproductive years, but it is noteworthy that there are three women under thirty, the youngest of them nineteen years old. Only one of the midwives has never been married and has no children.[3] Five of the women are widows, four were abandoned by their spouses and the rest are either married or live in conjugal relationships. In contrast to the Mayan midwives (Paul 1975), Nicaraguan parteras are not obliged to 'give up' or refuse sexual relationships with their spouses because of their midwife status. In fact two of the midwives were pregnant at the time of the interview and several had small infants.

Table 4. Parteras by age.

	under 30	31-40	41-50	51-60	61-70	over 71	total
No.	3	8	7	12	6	2	38
%	8	21	18	32	16	5	100

2. Reproductive Histories of Midwives

Over half of the midwives are beyond reproductive age and have thus completed their families.[4] Thirty-four parteras have had altogether 312 live births, from 337 pregnancies. The figures give an average of nine live births per woman, which is somewhat higher than the

---

[3] The midwife without children is an urban midwife who has auxiliary nurse's training and served over twenty years in a hospital in the maternity ward.

[4] One of the midwives has no children, three others found discussion on their own families irrelevant, thus no information was acquired on them.

estimated average for rural Nicaraguan women, but most likely reflects the birth rates of their generation.[5] The midwives reported twenty-five miscarriages. They habitually included the miscarriages into the total number of their children in the interviews. The group had lost sixty-four children in infancy. Only nine parteras have not experienced loss of small infants and six midwives have lost adult children in the war.

3. Occupations, Midwifery Work Experience and Remuneration of Midwives

The midwives have an average of seventeen years of experience of assisting births. The younger midwives tend to attend fewer births per month than the older and more established ones but there is variation depending on the density of population of the area where the midwife lives. Some urban midwives can see up to fifteen or twenty births a month while rural parteras assist at an average of two or three births a month.

The majority of midwives are part-time parteras. Some of the most frequently sought out urban midwives could be considered full-time practitioners, because they also engage in herbal medicinal cures. The majority are housewives. None of the midwives has a full time paying job; but several are engaged in occupations in the informal sector: for example selling drinks at the bus station, or selling lottery tickets. Several midwives work seasonally in coffee harvesting. The majority of midwives also give intra-muscular or intra-venous injections for a small

---

[5] In a sample of forty-two women of a similar age group (Madres de Héroes y Martires, a group of mothers who have lost children in combat) an average number of 9.4 children per woman is reported (Solá and Trayner 1988:179).

fee.[6] Some midwives have also been accused of inducing abortions. The prevalence of this practice is very difficult to prove as both parteras and health officials are reluctant to discuss it.

Despite the aim of the training program to make midwives into popular health workers, most of the trained midwives are not engaged in health education or in assisting the health post nurses in their numerous tasks.

Traditionally parteras have no fixed fees for their services, but fees are becoming increasingly more common both in urban and rural areas. Midwives say that they never ask for a certain sum, but accept what is given. Women in the urban neighbourhoods insist, however, that certain midwives charge so much that they cannot afford their services.

While some kind of remuneration is given to most midwives the amounts exchanged in the cities tend to be higher. Midwives are hesitant to reveal how much they expect to be paid, but rural midwives claim that certain well-known urban midwives charge up to Cs 100,000 (USD 4 at the 1989 rate of exchange) while they themselves get Cs 20,000 to 30,000 (USD 0.80-1.20). The difficult economic situation of the country is felt by the midwives, and the additional income is most often badly needed.

---

[6] It is common for Nicaraguan doctors to prescribe medications in the form of injections rather than as oral preparations even for home administration. This practice has created work for injectionists, trained or self-learned, who give all kinds of injections for a fee. Some midwives also give oxytocin injections to speed up births, although this practice has become less frequent with the shortage and high prices of drugs.

4. Sources of Midwifery Knowledge

There are various ways of becoming a midwife in Nicaragua which results in heterogeneity of the knowledge and practices of the midwives. I will distinguish three most important ways of becoming a midwife: learning alone, learning through apprenticeship and learning through biomedical training (see Table 5). In contrast to midwives in some other cultures (e.g. Sargent 1982:69), Nicaraguan parteras do not learn through dreams or spiritual calling.

When asked about the source of their midwifery knowledge and skills, the midwives most often answer: "aprendí por necessidad" ("I learned out of necessity; on my own"). The majority of midwives learn their trade on their own without apprenticeship. They have their first experience of assisting a birth either by having a child alone or by having to assist a relative or neighbour because no-one else is available. They gradually get more experience as more women ask them to help out. Most of these women are illiterate, although there are exceptions: one primary school teacher worked as the midwife of her community for several years. Their practice is based on the common shared knowledge of all women that birth is a normal part of women's lives.

The second largest group are the specialist midwives, who learn the trade either from their mother, grandmother or another female relative in apprenticeship. The apprentice has no formal beginning and ending: a young girl can accompany her mother-midwife from an early age and do small tasks for her. However, she is usually allowed to be present at birth for the first time after she has had a child of her

own. She usually starts working on her own when her teacher wants to give up getting up in the middle of the night, or when she moves to her own household. An apprenticeship with a non-kin midwife is uncommon, although one of the parteras is teaching a young girl who is not her relative.

The third group of midwives are women who have had some formal biomedical training, and now practice midwifery but are not affiliated with official health care institutions. They can be fully trained nurses, or have some other biomedical experience.[7] Most of them practice in urban neighbourhoods and often they have a large clientele.

Table 5. Parteras by source of midwifery knowledge

	No.	%
self learned	23	60
learned by apprenticeship	9	24
full or partial nurse training	4	11
learned in a private MD clinic	2	5
total	38	100

Work Histories of Three Midwives

In this section I will illustrate the variability of the knowledge and skills of Nicaraguan midwives in light of excerpts of work histories of three parteras.

1. Doña Pascuala

Doña Pascuala is a slender and fit woman despite her 70 years.

[7] One practising midwife who participated in government training is a laboratory technician.

She is used to foreigners because she hosts language school students in her modest two bedroom house in one of the popular barrios of Estelí. She is a well known and respected midwife in town and has a large clientele - women from other towns come to Estelí to give birth with her assistance. She does not host parturient women in her house, and does not go to remote villages any more as she did when younger, but she still sees an average of fifteen to twenty births a month.

> I have worked over fifty years, I started when I was eighteen. My older sister was a partera, but I did not start with her, the first time (to assist a birth) came around as an emergency, I just had to help even though I had never done it. I was not afraid, actually I liked it, and then I started following my sister. From her I also learned a lot about cocimientos (cooked herbal medicine).
>
> I had fourteen births of my own, one was born dead, and another was a breech. Six others have died of different illnesses in childhood, and one son was killed by la guardia (the National Guard) during the war. With such a big family I needed to work, too, I cooked mondongo (tripe stew) and sewed. Now I only see births...
>
> I have gone to places where doctors have never been, on foot, on horseback, during the war under the rain of bullets... Before our work was not appreciated, we were thrown in prison, but now we have our own training center.

Doña Pascuala's practice is based on her experience and her knowledge about humoral medicine. She gives a sobada (massage) to the pregnant woman in the eighth month. During the sobada she checks the position of the fetus and corrects it by gently turning it in the cephalic position. She likes to know her patients before their time is due. If a woman only asks for her at the time of birth she often refuses and sends the woman to the hospital instead.

She classifies herbs according their humoral characteristics and she is very careful about using only 'hot' herbs for the cocimientos,

for the woman giving birth:

> Cold herbs and cold foods are harmful after birth. The woman's belly is left with a great wound inside and it won't heal if you eat cold (foods). But too much hot is bad, too. The best would be to make the mistela out of cususa (home burn alcohol) instead of Ron Plata, which is too hot. If you mix cususa with hot herbs and honey it will be just right.

She is not protective of her special skills to assist births but considers it every woman's knowledge, and thus she wants to share it:

> When I cut and tie the umbilical cord I always ask the woman and her mother to watch, so that they will know how, if they have to do it themselves sometime.

Doña Pascuala knows herbal remedies for birth complications: for haemorrhage, for speeding the delivery of the placenta, for pains after birth. During the birth she gives them only a cocimiento of bitter lemon leaves and chamomile, both 'hot' medicinal herbs. She is also often consulted by women about other women's ailments. She knows medicines for menstrual pains, for delayed menstruation, for headaches, and for infections:

> Maltuerce is good for (menstrual) pains, it is fresco (cool), it cleans the belly, quits all the pain, it also takes out all coagulations. It can be used after birth, too...I once took lemonade (cold) after birth, and the blood (discharge) turned green, and I got terrible pains, I cured myself with maltuerce.

Knowledge of the humoral tradition gives her a framework to explain illness in terms of the humoral pathology:

> I assisted two births of a woman who had a big tumour in her belly. They wouldn't operate on her because she has sugar in the blood. I asked her where the tumour came from and she explained that she never took care of herself after birth, she drank cold things, and I am sure from this she got the tumour.

Doña Pascuala was among the first midwives to receive government training seven years ago, and she also attended the national conference

of midwives in Léon in 1983. She participates in the monthly meetings of the midwives of Estelí in the training center[8] where she, rather than the staff, is often consulted by other midwives about problematic cases. Her knowledge and experience is appreciated both by the staff and other midwives and she often gets invited to be the model midwife when international visitors come to the center.

The training has had an effect on her practice, she says. She feels more comfortable about sending women to the hospital to give birth when she recognizes problems:

> I send (women with) small pelvises, breech births and swollen ankles. The hardest part is to convince them to go, they want me to assist (the birth). Before (in Somoza time) I could not send a woman to the hospital and say that I had assisted a birth and had problems, they would have arrested me.

She has acquired some biomedical vocabulary and uses words like eclampsia, haemoglobin and cephalic position accurately. However, she does not accept all the teachings of the training:

> Doctors say that you can eat everything after you give birth and it won't harm you. That is a lie! If you eat cold foods you become barrigona (one with a big stomach), and you can get all kinds of sicknesses. In hospitals they can feed you everything after birth, but they also have strong medicine and injections to protect you from harm. If you give birth at home you have to be careful and take care of yourself.

She resents the relaxed post-partum diets of the younger women:

> The young women of today do not take care of themselves. That is why there is so much sickness around.

Doña Pascuala emphasizes that the midwife has to accommodate the woman's wishes. She feels that her task is not to give commands, but to listen

---

[8] The activities of the training center are discussed in more detail in Chapter 6.

and help out:

> A good midwife is patient and has valor (courage). If you make the woman angry the birth won't go well, and one who is afraid should not see births. ... I give them my advise if they ask for it, but I cannot coerce people to change their habits.

2. Doña Francisca

Doña Francisca is a thirty-nine-year-old farmer's wife. She completed four grades as a child and is currently in adult night school in the village to complete her primary school education. She has eight children and was three months pregnant at the time of the interview. She represents the largest group of Nicaraguan midwives: she was never in apprenticeship but learned on her own.

> I was eighteen when I started. I had one daughter, and I and a compañera (friend) were alone in a remote community when her pains started. I said to her: 'I know how I gave birth, now you have to listen to me.' The baby was born in my power.

After the first experience the word got around that she had successfully assisted a birth and other women started calling on her to assist their births. Doña Francisca's fame as a partera grew with her experience. She commented on her growing fame: "Es que se pasa el mal de las gallinas" ("A chicken's flu goes around").

> They (women) like my intelligencia (wisdom), and my way to treat them. I give them herbal teas, like the custom is around here: leaves of lemon and chamomile. A lot of women also ask for a sobada but I say: 'I won't massage you, but I will touch to see how your baby is.'

Doña Francisca is a popular midwife in her village and is often asked to go to other communities as well. She assists approximately three to four births every month. She herself has given birth to her two youngest ones alone, with just the support of her compañero (common-law

husband). This is what she also plans to do for her next birth.

> Here many women give birth alone, or with their husbands. And why not, there is no science to this! ... Many of them come to seek me to cut the cord, however.

Cutting the cord is considered the most important skill of a midwife. Doña Francisca uses the scissors that were provided in the training course. She carries them in a plastic bag in her pocket, as the kit is too big and uncomfortable to carry when she goes long distances on horseback.[9] She boils the scissors before using them and cleans the umbilical stump with cotton and alcohol as she was taught in training.

> Before we used razor blades and camphor for the umbilical stump, and still when I go to check the baby after three days, many mothers have put on camphor and garlic to the stump, to prevent moto (neonatal tetanus).

She also uses herbal medicine in her practice, herbs that are commonly known and used by most women. Some women come to ask for advice about problems during pregnancy but she is not consulted about children's ailments:

> Everybody here knows the common herbal cures for diarrhea and colds. If they do not help people seek a curandero (healer) or go to the health center, they do not need me.

Most of her clients follow a dieta "because it is the custom here." In her training course and at midwife meetings in Estelí she has heard about the recommendations to eat everything in the post-partum period. However she feels that she should not try to change the diets of the women:

> A woman should have the same pattern in all her births. If she

---

[9] She also commented that it is dangerous to go around with the clearly visible midwifery kit in the remote areas where there are many counterrevolutionaries. She felt her safety would be threatened if contras met her.

> followed dieta in the first birth, so she should in the following, too, otherwise she can fall sick. And primerisas (women giving birth for the first time) listen to their mothers who want them to follow dieta. After all they live with their mothers, not with me. They say that acid foods are bad and they don't eat avocadoes, eggs, butter, onions and cabbage, but still they eat beans, and potatoes and sometimes chicken, so there is really no reason to coerce them to leave the diet.

When I asked her about humoral medicine, she answered:

> I do not know about this hot and cold stuff. If you want to know about that you have to talk to Doña Telma (another midwife in the same village).

Like Doña Pascuala, Doña Francisca thinks that the most important characteristic of a midwife is to have valor (courage).

> The problems in birth come when the woman starts to be afraid, and if the midwife is afraid, too, what good can she do? One has to be able to give them courage.

Doña Francisca was also among the first midwives trained in the pilot training program seven years ago. She has not been going regularly to the midwives' meetings in Estelí because of the demands of her large family. She is eager to learn, though - "aquí no tenemos nivel cultural" ("we have no cultural standards here") - and she feels that it is important that midwives have been recognized by the government. However, the situation is not without problems:

> I wish that the government could help us with some clothes for our kids or something, we are so poor, all of us. Some people cannot afford to give me anything for helping them, but I won't refuse (to help them) for that. ...(But others) won't give me my pay because they think that we are paid by the government!

3. Doña Ambrosia

Doña Ambrosia lives in a popular neighbourhood where streets turn into mud in the rainy season. She is fifty years old, a fit and

energetic woman who runs a large household on her own. Her state employed husband works away from town and only comes home on weekends. Doña Ambrosia had seven children, one of whom died during the insurrection at the age of seventeen. Another is studying psychology abroad with a government grant, one is working out of town. The four youngest children, her daughter-in-law, and her two-month-old granddaughter live with her. Her mother has separate quarters attached to the house.

> I married very young and had two children before I was twenty. But I always wanted to be a nurse, so when my first husband died I managed to get a job in the hospital. I started a (nursing) course by correspondence but I never finished my degree because of family problems...

Doña Ambrosia was very involved in the insurgency and worked for several years in the clinic of the Ministry of Interior. She started assisting births at home while she was practising in the hospital and after the birth of her two youngest children, twins, she decided to stay home. She now gives injections and intravenous fluids and drugs that are commonly prescribed by doctors to be administered at home. Doña Ambrosia assists births, but because of her family she does not go far. She has furnished a room in her house for deliveries: women who come to give birth in her house stay between one and three days. She cooks and washes for them during that time. Doña Ambrosia sees up to ten births in a busy month. Since the death of her son, however, she suffers from migraine headaches and might go for weeks without being able to attend anyone.

Doña Ambrosia also attends the midwife meetings every month at the centre as she is very eager to learn more. She says that from the other

midwives she has learned about the use of herbal medicine in birth. She now has a big herb garden where she grows herbs to use for births and to treat ailments of her family. In the meetings she often brings problematic cases under discussion. She also seeks to find answers in books. She has acquired a copy of Our Bodies, Our Selves in Spanish, which she consults frequently and she also has pamphlets about the use of herbs for common ailments.

In her practice Doña Ambrosia uses both herbs and biomedical drugs. During labour she gives the woman lemon and chamomile tea, and after birth she might give commercial pain killers for the pain. She asks for the prenatal control card from the health centre, and if the woman has not gone for her check up she sends her to the hospital. She, like Doña Pascuala, finds it difficult to persuade her patients to go:

> Some (women) just stay, and then it is time to give birth and what can I do but help, when they do not want to go to the hospital.

For Doña Ambrosia the income of her nursing and midwifery activities gives her extra money of her own while she feeds and clothes her family with her husband's income. For the injections she charges a fixed sum, but not for deliveries:

> I have assisted women in shacks where they did not even have a cloth to put underneath, how could I ask for money from them? ... One woman gave me two eggs - two eggs for staying up all night with her! Another drank so much pinol while she was here, that the money she gave me did not even cover the cost of her food... I do not do this for money, I like the work.

Although money is always welcome, she is embarrassed to ask for money if the client does not pay voluntarily. Once Doña Ambrosia did three postnatal "check-ups" on one of her clients hoping to get her payment. But she never asked for it while visiting the woman. She was never paid.

Nevertheless, she has a reputation in the barrio for charging high fees and it is probable that poorer women do not seek her out as much as they might seek out the other midwives in the neighbourhood.

Conclusion: Knowledge, Practice and Authority

Although Doña Pascuala, Doña Francisca and Doña Ambrosia are all parteras, their knowledge and skills differ. They have different degrees of familiarity with indigenous medicine and biomedicine but they all integrate some of both into their practices. Doña Pascuala is closest to a 'traditional specialist' as she has inherited specialist knowledge. She uses recipes of her own for medicine, and is widely respected as a midwife and healer. Doña Francisca's knowledge of the humoral tradition is at the popular level. She knows the same things as her neighbour women about the humoral principles such as that acid[10] foods are bad for one after birth but why it is so she cannot explain. However, she knows this is so because she has seen and heard of babies getting diarrhoea if mothers eat acid fruit. Knowing how to assist births is considered the knowledge of every woman, just as birth is the experience of every woman, but what makes a woman like Doña Francisca a respected partera is her experience and valor (courage). With courage, her experience and skills will also accumulate, and with them her empirical knowledge.

---

[10] The list of harmful substances that she and her neighbours list as acid is very similar to the lists of substances that knowledgeable midwives list as cold.

Doña Ambrosia, despite her formal biomedical training, combines both humoral and biomedical traditions in her practice, although her knowledge about the humoral tradition is at the popular level and her personal experience of its effects is limited. She uses chamomile because she has learned in the midwives' meetings that it calms the nerves, and a tea made of lemon leaves because it enhances contractions. She respects the skill and experience of indigenous midwives but not all biomedically trained midwives agree with her:

> We (midwives with nurse training) have a scientific advancement as we have learned with doctors. We are not like the vulgar country parteras who tie ropes around women's bellies! (Doña Mária Eugenia)

The three women discussed in this chapter have decades of experience in midwifery. However, not all midwives are old and experienced; there are a number of younger women who are in the process of starting their midwifery careers. The majority of them started in the same way as Doña Francisca, because other women needed someone to assist with their births.

I have presented these three women as three different kinds of midwives, based on the appropriation of midwifery knowledge. However, it is necessary to point out that rather than clearly distinguishable groups, they represent different points on two continuums: indigenous--biomedical knowledge and indigenous--biomedical practice. Their knowledge is synergetic, combining aspects of both traditions. The way they practice is not in a direct correlation with how well they know the theoretical knowledge of the medical traditions because every partera interprets these traditions according to her experience. Thus,

familiarity with the humoral tradition does not hinder midwives from trying things they have learned from health educators, although they might use the logic of the humoral tradition to make sense of them. For example, in the training program, midwives have learned to use alcohol instead of burning the umbilical cord with a heated machete (heavy knife). Within the humoral tradition the baby is considered to be 'cold' after birth and thus a touch with a hot iron is beneficial for the humoral balance. Thus, when midwives started using alcohol instead of the machete some of them say that the effect is the same, because the alcohol 'burns'.

Despite their different knowledge, all parteras base their practice on empirical experience. They are neither 'indigeous' nor 'biomedical,' but empirical midwives. Their practices are empirically based on their personal work experience and on what they have learned from other midwives or trainers. Their knowledge and practices are dynamic and flexible and cannot be defined in terms of a specific medical tradition. The empiricism makes their practice flexible rather than tied to rigid classifications of indigenous knowledge. The expertise of empirical practitioners is defined by the role they have in their communities that enables them to gain experience. Furthermore, their knowledge does not give them authority to dictate how women should give birth. The parteras describe their work as "helping out" and "giving courage." They have a strong respect for the wishes of women - and their mothers - and despite training courses they often do not persuade women to change their ways. The role of the midwives is not defined by esoteric knowledge but by the women they serve.

CHAPTER 6. A TRAINING COURSE: POINT OF CONTACT FOR POLICIES AND MIDWIVES

In this chapter I examine how the government's training policy is worked out in practice in Region I. The policy, which was formulated with strong economic and ideological motives, creates an organized setting in which institutional health care and the life worlds of midwives meet: a training course. I describe a training course and discuss the results of training in light of the stated goals of the program.

Midwife Training in Region I

The Nicaraguan health care system provides each region with a great deal of independence in solving their health problems within the national guidelines. Region I had already started a midwife training project in 1982 before the national program was instituted by MINSA. The people in charge of the project in the region were foreign nurses who first spent two months in villages studying the way in which midwives traditionally worked, and then created a training program based on their experience with the village midwives. They set up two week courses in villages for the midwives, working with small groups of women and doing a lot of practical exercises with them. The main focus of the training was hygiene. Treatment of the umbilical cord and care of the

newborn were taught with simple techniques and vocabulary[1] (Luisier 1985). Yet, despite all the effort training did not seem to change the midwives' practices very much. One of the educators described a follow up visit to a village where a training course had been given three months earlier:

> We found that almost 100 percent of what we had advised them to do was not followed. The midwife kits were filled with camphor pills for burning the umbilical stump, the scissors were used for cutting paper, ... and the towel for drying hands was wrapped around tortillas. The women in the village confirmed that nothing had changed in terms of the practices of the midwives (CNMPT 1988:21).

This however, did not discourage the trainers, rather it indicated the importance of a follow-up program. They felt that real changes could only be attained with continuous work with the midwives. In their opinion the initial training was only the first step to win the confidence of the midwives so that they would start working with the system, instead of outside of it (ibid).

Gradually training was turned over to the hands of Nicaraguan health educators, and courses were organized in the region regularly so that 436 trained parteras were registered by MINSA in the region by June 1989. In 1987 a regional training centre was built in Estelí with a permanent staff of three nurse-educators who are in charge of all midwife training in the region, together with popular health educators of the regional MINSA office.

---

[1] The educators in Region I never used MINSA's handbook because they felt it was too biomedically oriented and out of touch with the reality of midwives.

Case-Study: a Training Course in Ocotal

The training course I followed in May 1989 in Ocotal, in Region I, was arranged in cooperation between the staff of the training centre in Estelí, officers from MINSA regional office and the staff of the local hospital and health centre. The participants, thirty-seven women and one man,[2] were midwives from remote villages along the Honduran border zone. Eighteen of the participants were taking the course for the first time, twenty had already been trained but came to the course to refill their midwifery kits. The average age of the participants was forty-six years and in terms of their background they represented the heterogenic characteristic of Nicaraguan midwives: five had received some nursing training, twelve had learned from their mothers or other close relatives and twenty were self-taught. One-fourth of the women could read and write, and on the average they had been working for fifteen years, with a range of experience from zero to forty years.[3] The participants had been invited to the course by local health post nurses and they received free transportation, meals and lodging during the five days of the course.

Cooperation between the organizing groups was not smooth; the regional health educators and the hospital doctors and nurses disagreed about the teaching methods from the beginning. Their teaching methods

---

[2] He was the only male midwife that I met in the region. There are no official figures of how many men have participated in the midwife training courses. The health educators mentioned that men are more often injectionists rather actual birth attendants.

[3] Although MINSA guidelines do not accept training of people with no former experience in midwifery, the group also included four young brigadistas who had never assisted births.

were illustratively different: the educators used socio-dramas and discussions and got their audience involved in contrast to the lectures given by doctors who literally put the midwives to sleep with medical jargon.[4] The health educators did not approve of the lecturing methods of the doctors, and blamed them for insensitivity to the limited ability of the illiterate midwives to listen to medical lecturing. Despite years of experience in training midwives the educators were not ready to confront the authority of the doctors directly. The educators kept assuring me that this was not a typical course: "We do not usually include doctors as teachers, they do not know how to teach."

Despite disagreements on methodology, both groups agreed on the topics that should be covered in the course. There were twenty-six hours of sessions which were organized according to a biomedical model for the understanding of pregnancy and birth. The course started with an explanation of the anatomy of the reproductive organs and the

---

[4] Despite its flaws the course was an absolute success compared to the midwife training session I was able to follow in the Hospital Carlos Marx in Managua in June 1989. This was a course arranged by the hospital's East German staff and was meant to establish a relationship between the hospital and the midwives in its responsibility area. Although an invitation had been sent out through area nurses to about fifty midwives, only four showed up for the first session. They were expected to travel to the hospital every Saturday for six weeks, sit and listen to four hours of lectures in German through an interpreter that dutifully translated all the German medical jargon into Spanish medical jargon! The course was later postponed, officially the reason was that MINSA wanted to concentrate on teaching the midwives about the oral rehydration program, but I suspect the lack of interest from the part of the midwives affected the decision a great deal. The experience is an example of the difficulties that a local government has in coordinating activities run by foreign funding, and an example of the arrogance of foreign establishments in totally dismissing local knowledge, in this case the experience of arranging midwife training in the country for over seven years.

physiology of menstruation and pregnancy, followed by the care of pregnancy, normal birth, and the new born, and ended with a lecture on birth control methods. The importance of reporting activities to local health posts and centres in exchange of refill materials for midwifery kits was also explained to the midwives.

The only recognition of the heterogeneity of the group of participants was that the midwives were divided into two groups according to their background training: previously trained and 'new' midwives. References to indigenous knowledge and practice of the midwives was almost totally absent from the curriculum.[5] Furthermore, the programs given to the two groups were almost identical[6] because the trainers were not prepared to teach previously trained midwives.

The involvement of midwives depended not only on the methodologies used but also on the familiarity of topics that were covered. The active phases in the course: socio-dramas in which the midwives "acted out" a birth, or illustrative demonstrations of different phases of birth by using a knitted womb, a doll and a plastic pelvis, encouraged a fair amount of discussion and engagement among the midwives. These sessions were also on familiar topics that midwives could easily relate to their work. The midwives' 'tuning out'[7] during the lectures which

---

[5] The educators referred to it only through negative assurance: "You do not use tight belts across the belly to push the baby down, do you?" To which, of course the midwives gave an assuring answer.

[6] The previously trained group received also a special lecture on sexually transmitted diseases.

[7] Jordan has accurately described the midwives' listening posture during lectures as "waiting-it-out": sitting impassively, gazing far away, similar to other waiting situations (Jordan 1989).

only involved listening was not only due to the teaching methods, but also due to the material taught. A lot of course time was used for topics, such as the physiology of fertilization, that in the biomedical framework are essential for understanding birth but which the midwives found difficult to connect to their practice. The only group who engaged in discussions with the doctors about their lectures were the midwives with some biomedical training whose questions inspired the doctors to get into more detailed and complicated explanations.[6]

Listening to biomedical explanations did not change midwives' understanding of pregnancy and birth. After the afternoon lecture on the physiology of the human reproductive organs and fertilization, I discussed with a group of midwives the subject matter of the day. They explained to me that for a new life to begin one needs "the blood of woman and the semen of life of man" and these together will form a child. The fertilization could happen at any time during the menstrual cycle because there is always blood inside the woman's belly, thus it is impossible to predict the date of birth. The midwives also explained that the positions of the moon determine the day of the birth in the ninth month of pregnancy.

The fact that midwives did not appropriate biomedical explanations and concepts does not indicate that they are unable to learn, rather it is a sign of the inappropriateness of the contents and techniques of the lectures. The aim of the course is to change practice, yet theoretical

---

[6] Some of the nurse-midwives were also complaining about the unscientific content of the training course, and refused to participate in socio-dramas.

knowledge is emphasized rather than the practise of midwifery skills: most of the time midwives were sitting down and listening.

Dealing with familiar and practical issues could improve the effectiveness of training. If the educators want the midwives to start washing their hands with a brush they should practice hand washing in the course rather than mention it in passing; if midwives are expected to sterilize the scissors by boiling them for twenty minutes, this should be practised in the course rather than just talked about. This is closer to the traditional mode of learning, and as Jordan has pointed out, in traditional apprenticeship midwives learn by following their teacher, doing and experimenting, rather than just listening (Jordan 1989).

Follow-up: Official Sector vs. Training

The training course is meant to be a beginning for a continuous relationship between parteras and their local health areas. However, there has not been any effective follow-up training outside of Estelí where approximately thirty of the sixty-five trained parteras in the greater Estelí area attend the monthly meetings organized by the training centre.[9] In these meetings midwives suggest topics they wish to be discussed by the trainers, mostly about complications they have encountered. Regulations and norms of MINSA's policies are also discussed.

Although these meetings are meant only for midwives who are

---

[9] Doña Pascuala, Doña Ambrosia and Doña Francisca are among the midwives who attend the meetings in the training centre.

already trained they also attract a number of younger women with no former experience but with aspirations to become midwives. These young women do not receive any special attention by the trainers who treat all the midwives as a group of knowledgeable experts: "You have much more experience in attending births than we do, you should be training us!" In fact, the younger midwives who have less experience often consult the older knowledgeable midwives rather than the educators, in effect the meetings turn into a midwives' own network.

Outside Estelí the midwives are practically on their own mainly because MINSA has not made any efforts to re-educate health professionals in the official policy about the new role of the midwives. The follow-up is a task of the local health post nurses who are already in charge of all of MINSA's preventive programs: pre-natal controls, growth and development controls of children, vaccinations, family planning, tuberculosis and malaria controls. The supervision of parteras and brigadistas is simply not a priority in their busy schedule. The health post nurses in the rural areas are often young, recent graduates doing their social service who have no training in obstetrics or in methodology to train illiterate parteras who are their grandmothers' age. The nurses often feel overwhelmed with their task of teaching the midwives, and either take an authoritative approach, or displace their resentment onto the parteras, who in turn barely take the teachings of the young nurses seriously. The "supervision" is minimized

to dealing out materials, or to reading MINSA's regulations at best.[10]

Doctors and nurses in hospitals have not received any information about the training program either, except the few who have been involved in the training courses themselves. Many health professionals consider indigenous midwives as quacks whose practice is primarily harmful. Contradictory to the encouragement that midwives get in their training and meetings about referring complications to the hospital, the hospital staff does not treat them as health workers. The parteras are not allowed to present reports of their work to the staff when they bring a woman to the emergency department, at best they get the treatment of any family member if they are not actually shooed away. In the hospital's statistics midwives do not exist because their referrals are not counted. Thus an early diagnosis of a problematic birth correctly done by a midwife goes unnoticed by the hospital staff. Yet, they certainly notice the cases where a home delivery leads to complications where a midwife's attempts to treat them are unsuccessful. The hospital doctors' opinion about midwife practice is grounded in their limited empirical evidence of it: "Any woman who has been touched by a partera, can be considered a case of high obstetric risk."[11]

---

[10] The health post nurse in Valle is a daughter of a midwife. She has an exceptional interest in midwives' work and has developed a good relationship with all parteras in her area. Yet, she is not in charge of the follow-up training of the midwives as they go to the centre in Estelí.

[11] Fieldnotes, July 25th, 1989.

Results of Training

Despite their differing views about the midwives and also about which are the best training methodologies, the health educators, MINSA officials and hospital staff involved in training agree that training courses are important and beneficial for the midwives. The planners and trainers undoubtedly do their work in good faith that it will improve the health care standards of the people. Midwives share this view about the importance of the courses, and are eager to participate: "The courses are bonito (nice). We need to improve ourselves and it is good we are given the opportunity" (Doña Rosa). Yet, at no point has the training program been evaluated by MINSA. In the following, I examine the possible results of training in light of the stated goals.

1. Effects on Midwives' Practice and Role

The training courses are expected to change the practice of the midwives. The reason why this does not necessarily happen is not only due to implementation of inefficient methodologies, but also to the false assumptions on which even the better, illiteracy-sensitive methodologies are based. First, in the training course, midwifery is treated as an isolated medical technique that can be taught universally and adapted to any circumstances. Secondly, midwifery is seen as a health profession which gives its practitioners the authority of knowledge and thus an ability to expect changes in women's behaviour. These assumptions are based on the biomedical paradigm that isolates birth practices from the social and cultural practice of midwifery. The parteras however cannot do that in their daily lives. Their practice is

inseparable from their social and cultural role. As I showed in Chapter 4, in the women's eyes the midwives are respected for their ability to help women go through birth, but yet they are not considered to have a special authority based on knowledge. Birth is part of every woman's experience, and even the most experienced midwives are careful to respect the wishes of their clients to give birth the way they want:

> I cannot coerce the women to change their habits. If then something would happen to the baby the woman would blame me (Doña Pascuala).

The midwives' role as a helper rather than as a medical authority is not changed by the rhetorical proclamation of the MINSA official to the newly trained midwives as they are about to leave for their communities: "You are the Ministry of Health in miniature," referring to the health related tasks the midwives are expected to perform, under the supervision of their health posts. Very few of the midwives are involved in any other health care activities than those which they have always done in connection with assisting births.

In short, the way midwife training is done in Region I today has little long lasting effect on the practices of the midwives except for the parteras who participate in monthly meetings in Estelí. A single training course does not transform parteras into community health workers. At best, the training program is a government recognition for midwives' work. This recognition, however, is felt as important both by political planners and by midwives themselves.

2. Effects on Maternal and Infant Mortality

The belief that midwives' practice should be changed by training

is based on the premise that the 'upgraded practices' will improve maternal and neonatal mortality, especially mortality due to neonatal tetanus. However, there are no specific studies of the effects of midwife training on pregnancy outcomes. While infant mortality rates in the country in general have improved (see Table 1 on page 9), there is no indication that midwife training has actually had an effect on any of the statistics. Neonatal mortality decreased from 183.2 per 1,000 live births in 1980 to 135.1 per 1,000 in 1984, which was due primarily to a decrease in infant deaths caused by infectious diseases.[12] As a result, perinatal causes of death, such as hypoxia and asphyxia, became relatively more important causes of infant mortality[13] (MINSA 1987a). Yet, by 1986 neonatal mortality had increased again by twenty percent. This increase in neonatal mortality was estimated to be a result of an increase in cases of slow fetal growth and immature births (MINSA 1989), both of which are related more to the nutritional status of the pregnant women than to the techniques of midwives.

Clearly the training of midwives has not affected maternal mortality which has remained high, even sightly increased in the last decade: 0.56 per 1,000 live births in 1980, 0.67 in 1984, and 0.7 - 0.8

---

[12] The decrease in neonatal mortality might partly be due to a decrease in neonatal tetanus for which there are no specific incidence data.

[13] Perinatal mortality remained relatively stable, with a slight increase in absolute numbers: 9 per 1,000 in 1983 and 11 per 1,000 live births in 1985 (MINSA 1987b).

per 1,000 live births in 1989[14] (MINSA 1987). However, midwives can hardly be blamed for the worsening statistics. Although official statistics do not indicate the causes of maternal mortality, it can be inferred that the main cause for high maternal mortality is not found in the childbirth practices of the midwives, but in the high rate of illegally induced abortions in the country. In several hospital-based studies, induced abortions constitute the most important reason for mortality among women in the fertile age group (Alemán and Gárdenas 1984; Altamirano et al. 1985). So far, the government has not been willing to deal with the abortion issue directly.[15] Instead the focus in women's health care is on maternity health which reflects the perceived importance of women's roles as mothers in the society.

Focus on Midwives: a Misdiagnosis

The heterogeneity of parteras as a group makes an overall assessment of their skills difficult. Some midwives' practices are iatrogenic, such as tightening a rope around the parturient woman's belly to 'help push' the baby down, while other midwives have gained considerable experience to deal with some complications such as breech births. Yet, however experienced, knowledgeable and courageous midwives

---

[14] The figure for 1989 is an estimate given by Dr. Freddy Gárdenas, director of the Maternal and Infant Health Division of MINSA in Managua.

[15] The government policy is that education is a means of making abortions unnecessary. President Ortega explained the stand of the government to an assembly of women's organizations: "We have to situate ourselves in our social and cultural reality; more important than abortion (rights) is to educate the women that they would not feel obliged to have abortions" (Barrigada, April 23rd, 1989).

may be, there are always certain rare obstetrical conditions in which hospital care can be lifesaving, such as with obstructed labour, or rupture of the uterus. The inability of midwives to deal with all complications tends to undermine the value of their work in normal births in the eyes of health professionals, despite MINSA's assessment study[16] which indicates that parteras' performance is comparable to that of hospitals: although intrapartum infant death rate was higher for home births, both perinatal and neonatal death rates were lower for home births[17] (MINSA 1986).

The fact that half of all births in the country are assisted by indigenous midwives is not the main reason for high infant and maternal mortality. High neonatal and maternal mortality are both results of the worsening socio-economic conditions that affect the nutritional status of pregnant women and impel an increasing number of women to seek illegal abortions. Thus, the key to the improvement of maternal and infant health is not found in midwives' ability to learn new techniques, but by focusing attention on the economic and social causes of maternal and infant morbidity and mortality, and by building a proper division of labour and collaboration between the indigenous and biomedical sectors at all levels of the health care system. Training courses that only

---

[16] The study compared 1,629 births in regional hospitals, 4,164 births in Hospital "Berta Calderon" in Managua and 1,117 homebirths in seven Regions of the country (MINSA 1986).

[17] Intrapartum death rates were: regional hospitals 0.2 per 1,000, "Berta Calderon" 0.1 per 1,000 and homebirths 0.4 per 1,000; while perinatal mortality rates were respectively: 3.9; 2.3, and 2.1 per 1,000, and neonatal mortality rates were 2.3; 1.5, and 1.2 per 1,000 live births respectively (MINSA 1986).

focus on changing midwives' practice and ignore the biases imposed on the *parteras* in the official system hardly do anything towards these goals.

CHAPTER 7. CONCLUSION

In Nicaragua in 1989 the constraints of war and the economic situation are felt by the government and by the people in their daily lives and practice, yet the difficulties do not affect everyone equally. High neonatal and maternal mortality rates show that women and children are especially affected by this situation. The increasing defense expenditure has contradicted all the social policies which the government enthusiastically implemented in order to improve the general living conditions of the people, and those of women and children in particular, during the decade of Sandinista rule. When government policies are geared toward survival rather than economic and social advancement, programs like midwife training do not receive the attention or funds they would in times of peace. Yet, although the socio-economic effects of the war cannot be dismissed, the relations between the Nicaraguan government, health professionals, midwives and women cannot be simply examined in light of international imperialism. The fact that the relations are imbedded in a local, as well as a global, politico-economic context does not imply a primacy for economic explanations for relations between policies and people. Rather, the Nicaraguan case implies for the interconnectedness of the political, ideological, social and cultural dimensions of reality to the practice and life-experience of people. In what follows I summarize the position and interests of the groups involved in, or concerned with the midwife training program, and I conclude with suggestions for implications that my study has for

medical anthropology.

At the time when the midwife training program was first formulated the Sandinista government was not only creating its policies but also its political direction. The struggle over the direction of the general development of the health care system between political and biomedical health planners is a reflection of a time of nation building in which the popular cultural roots of the revolutionary movement were incorporated into the policies. At that time the Sandinistas could count on wide support and massive popular participation in all programs.

The government's goal to provide biomedical care for all and at the same time incorporate indigenous midwives into the health care system results in an ambiguous definition of the role of midwives. Ambiguity of the program is created by the government because in the eyes of the planners biomedical and indigenous practices are incompatible. The planners are not ready to accept official pluralism as the basis of the health care system. The Sandinista front itself is going through a transformation from a popular revolutionary front to a government party. As the process of institutionalizing the revolution becomes more solid, the government's romanticized vision of midwives as representatives of popular values is replaced with a rhetoric that strongly emphasizes the economic incentives for using indigenous practitioners in the health care system. The ideology of popular participation remains in rhetoric while policies are geared to build a strong health care system to consolidate the revolution.

The biomedical official system keeps its priority position within the government's plans. Its functioning suffers from lack of supplies

and educated health workers while the demand for services is increasing. Health professionals are overworked within the existing conditions and the incorporation and training of indigenous midwives is of little importance or interest to the health professionals. The Nicaraguan case shows again, like in many other developing countries, that the actions of the official sector to integrate indigenous practitioners result in their subordinate position in the hierarchical system.

In government rhetoric the parteras are, on the one hand, representatives of people and hence part of the roots of the revolution, and on the other hand, representatives of the government, "The Ministry of Health in miniature." In reality the parteras remain indigenous, and their practices empirical and syncretic. Their role in the official system is marginal, yet their contribution to women's health care is significant. For example, they continue assisting more than half of all the births in the country. Midwives themselves make the best out of the situation; they take the government recognition but continue practising with the mandate the women give them: with valor and intelligencia. Although the midwives carry the signs of government recognition, the midwifery kits, the real legitimacy of their practice does not come from the government. Nor is their practice made less important by the ambiguity of the health professionals towards them because their practice is not defined by the official sector but by the women whom they serve. Furthermore, the midwives are using the organized forum to form their own network: the midwives' meetings are turning into an arena for midwives to consult with each other.

Rural women view childbirth as a normal event in every woman's

life which may, however, infrequently imperil her well-being. Giving birth involves an inevitable risk which the women have learned to accept. Their approach to birth is primarily pragmatic. Given the relatively isolated conditions that the rural women have lived in, it is understandable that women have learned to trust their own means of dealing with childbirth and the strength of the women themselves is highly valued. In the women's shared experience, births ultimately go well with the necessary courage. This experience does not make biomedical care incompatible with indigenous care - women seek biomedical assistance when they find it necessary. Medical pluralism is part of the lives of the women and indigenous and biomedical practices are not incompatible but on the contrary, complementary. Yet, with the worsening socio-economic situation women's concern is not how births are managed but how to avoid further pregnancies. Women in rural and urban areas are increasingly seeking contraception, but the demand is beyond the ability and willingness of the government to supply contraceptives. The government health policies emphasize maternity and obstetrical services in women's health care, while women's other health needs, mainly that of contraception, are not sufficiently addressed.

In this thesis I have attempted to bring together the multiple dimensions of Nicaraguan reality to show the connections between the politico-economic, socio-cultural and individual life-worlds within the realm of midwifery and birth practices, because these dimensions cannot be fully understood as independent entities. The Nicaraguan case implies, not the primacy of any one of these dimensions in analysis, but the importance of taking all of them into account in interpretations of

human reality.

If midwifery in Nicaragua were to be examined merely as an expression of a local medical tradition, the complexity of the social, political and ideological context in which midwives practice would not be sufficiently represented. While indigenous knowledge is influential in the way in which birth practices are conceived of by midwives and women in general, a narrow focus on the knowledge and practice of midwives reinforces an emphasis on obstetrical services, whether indigenous or biomedical.

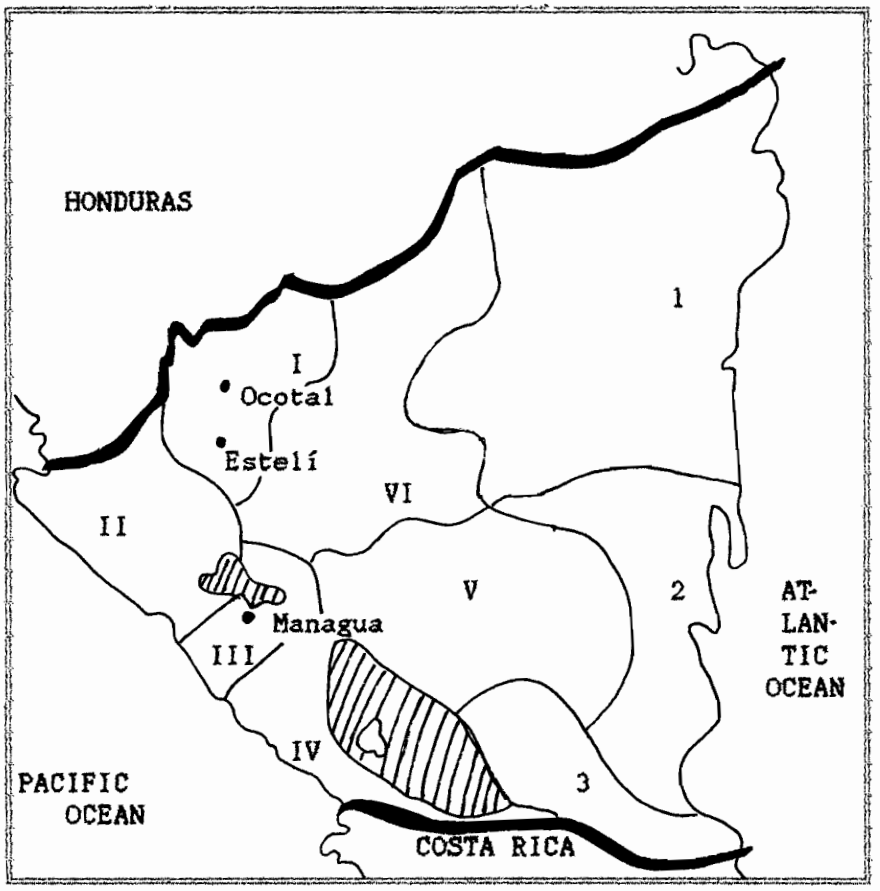
Furthermore, the Nicaraguan case also indicates that an anthropological approach that examines indigenous practice and biomedical practice as parallel systems potentially only polarises a situation in which health planners and practitioners conceive of the relationship between the traditions to be in conflict. A simple comparison of the systems is in danger of merely restating the perceived conflicts that hinder a true collaboration between practitioners of different medical traditions. A critical medical anthropological approach can demystify the assumed contradictions and place the medical traditions and their interconnectedness in their local, historical, politico-economic and cultural context.

EPILOGUE

While I am finishing up this thesis the political scene in Nicaragua is changing. In February 1990, in a most carefully monitored electoral process, the Sandinista government lost power to the National Union of the Opposition (UNO), a coalition of fourteen opposition parties that is financially backed by the United States. This most likely will bring an end to the devastating contra war and to the economic embargo. What the change of government means for poverty and social programs is left for the future to show. One thing is certain: the Nicaraguan midwives will continue their practice as always, since, after all, their practice is defined by the women, not by governments.

APPENDIX

Figure 1. Republic of Nicaragua, Regional and Special Zone Divisions



Region I Estelí, Nueva Segovia, Madriz
Region II León, Chinandega
Region III Managua
Region IV Carazo, Granada, Masaya, Rivas
Region V Chontales, Boaco, Zelaya Central
Region VI Matagalpa, Jinotega
Special Zone 1 Zelaya Norte
Special Zone 2 Zelaya Sur
Special Zone 3 Río San Juan

REFERENCES

ALEMAN, Denis and Freddy Gárdenas
1984 Impacto del Aborto Provocado Sobre la Morbimortalidad Materna. Managua: UNAN and MINSA.

ALTAMIRANO, Ligia, Cecilia Fuentes, Auxiliadora Valle and Marvin Rodriguez
1985 El Aborto Inducido Ilegalmente: Costos y Consequencias. Managua: Hospital de la Mujer "Berta Calderon."

BAER, Hans A., Merrill Singer and John H. Johnsen
1986 "Toward a Critical Medical Anthropology." Social Science & Medicine 23: 95-98.

Barrigada
1989 President Ortega's speech to the women's organizations. April 23.

BIBEAU, Gilles
1988 "A Step Toward Thick Thinking: From Webs of Significance to Connections Across Dimensions." Medical Anthropology Quarterly, New Series 2(4): 402-416.

BOSSERT, Thomas J.
1981 "Health Policy Making in a Revolutionary Context: Nicaragua, 1979-1981. Social Science & Medicine 15C: 225-231.

1985 "Health Policy: The Dilemma of Success." In Nicaragua: The First Five Years, edited by Thomas W. Walker. New York: Praeger.

BRAVEMAN, Paula and David Siegel
1987 "Nicaragua: A Health System Developing Under Conditions of War." International Journal of Health Services 17(1): 169-178.

BROWNER, Carole H.
1989 "The Management of Reproduction in an Egalitarian Society." In Women as Healers, edited by Carol Shepherd McClain. New Brunswick: Rutgers University Press.

CNMPT (Centro Nacional de la Medicina Popular Tradicional)
n.d. La Medicina Popular Tradicional un Fenómeno Cultural de Sobrevivencia y Resistencia. Estelí: CNMPT.

1988 Entrevista con Susana Veraguas. Transcribed interview in CNMPT files, Estelí.

COLSON, Audrey B. and Cesareo de Armellada
1983 "An Amerindian Derivation for Latin American Creole Illness and their Treatment." Social Science & Medicine 17: 1229-1248.

COSMINSKY, Sheila
1976 "Cross-Cultural Perspectives on Midwifery." In Medical Anthropology, edited by F.X. Grollig, S.J. Haley, and H.B. Haley. Paris: Mouton Press.

1977 "Childbirth and Midwifery on a Guatemalan Finca." Medical Anthropology 1: 69-104.

DAVILA BOLAÑOS, Alejandro
1974 Medicina Indígena Pre-Colombina de Nicaragua. Estelí: Editorial Imprenta.

DEERE, Carmen Diana
1983 "Cooperative Development and Women's Participation in the Nicaraguan Agrarian Reform." American Journal of Agricultural Economics (1983): 1043-1048.

DONAHUE, John M.
1986a The Nicaraguan Revolution in Health: from Somoza to Sandinistas. South Hadley: Bergin and Garvey.

1986b "Planning for Primary Health Care in Nicaragua: A Study in Revolutionary Process." Social Science & Medicine 23: 149-157.

1989 "International Organizations, Health Services, and Nation Building in Nicaragua." Medical Anthropology Quarterly, New Series 3: 258-269.

ESCUDERO, José Carlos
1980 "Starting from the Year One: The Politics of Health in Nicaragua." International Journal of Health Services 10: 647-656.

FOSTER, George M.
1953 "Relationships between Spanish and Spanish-American Folk Medicine." Journal of American Folklore 66: 201-217.

1987 "On the Origin of Humoral Medicine in Latin America." Medical Anthropology Quarterly, New Series 1: 355-393.

FRANKENBERG, Ronald
1988 "Cramsci, Culture, and Medical Anthropology: Kundry and Parsifal? or Rat's Tail to Sea Serpent?" Medical Anthropology Quarterly, New Series 2: 323-337.

GARFIELD, Richard M. and Sten H. Vermund
1986 "Health Education and Community participation in Mass Drug Administration for Malaria in Nicaragua." Social Science & Medicine 22: 869-877.

GUZMAN, Patricia
1989 Interview. UNFPA, New York, March 29th.

HAHN, Robert and Atwood Gaines
1985 Physicians of Western Medicine: Anthropological Approaches to Theory and Practice. Dordrecht: D. Reidel.

HARRISON, Kelsey A.
1989 "Maternal Mortality in Developing Countries." British Journal of Obstetrics and Gynaecology 96: 1-3.

HEGGENHOUGEN, Kris and Paola Sesia-Lewis
1988 "Traditional Medicine and Primary Health Care." EPC Publication No 18. London School of Hygiene and Tropical Medicine.

HODGES, Donald C.
1986 Intellectual Foundations of the Nicaraguan Revolution. Austin: University of Texas press.

IHC (Instituto Histórico Centroamericano)
1989 "Good News, Bad News, Population Views." Envío 8(91): 36-43.

INEC (Instituto Nacional de Estadísticas y Censos)
1989 Nicaragua: 10 Años en Cifras. Managua: INEC.

JEFFERY, Patricia, Roger Jeffery and Andrew Lyon
1989 Labour Pains and Labour Power: Women and Childbearing in India. London: Zed Books.

JIMENEZ, Vilma
1989 Interview. Official of Maternal and Infant Health Care Division of MINSA. Managua, September 1989.

JORDAN, Brigitte
1983 Birth in Four Cultures. Montréal: Eden Press.

1989 "Cosmopolitical Obstetrics: Some Insights from Training of Traditional Midwives." Social Science & Medicine 28: 925-937.

KAY, Margarita A., editor
1982 Anthropology of Human Birth. Philadelphia: F.A. Davis.

KAY, Margarita and Marianne Yoder
1987 "Hot and Cold in Women's Ethnotherapeutics: the American-Mexican West." Social Science & Medicine 25: 347-355.

KEESING, Roger
1987 "Anthropology as Interpretive Quest." Current Anthropology 28(2): 161-176.

KITZINGER, Sheila
1982 "The Social Context of Birth: Some Comparisons between Childbirth in Jamaica and Britain." In Ethnography of Fertility and Birth, edited by Carol P. MacCormack. New York: Academic Press.

1988 "Why Women Need Midwives." In The Midwife Challenge, edited by S. Kitzinger. London: Pandora.

LADERMAN, Carol
1983 Wives and Midwives: Childbirth and Nutrition in Rural Malaysia. Berkeley: University of California Press.

LOCK, Margaret and Deborah Gordon
1988 Biomedicine Examined. Dordrecht: Kluwer Academic Publishers.

LOPEZ AUSTIN, Alfredo
1980 Cuerpo Humano e Ideología. Mexico: UNAM.

1984 Textos de Medicina Náhuatl. Mexico: UNAM.

LUISIER, Viviane
1985 Te Voy a Ayudar, Nada Más... Apuntes Sobre las Parteras Empiricas en Nicaragua. Managua: Copiaco.

MACCORMACK, Carol P.
1982 Ethnography of Fertility and Birth. New York: Academic Press.

1989 "Status and the Training of Traditional Midwives." Social Science & Medicine 28: 941-943.

MANGAY-MAGLACAS, A and H. Pizurki, editors
1981 The Traditional Birth Attendant in Seven Countries: Case Studies in Utilization and Training. WHO: Geneva.

MESSER, Ellen
1987 "The Hot and Cold in Mesoamerican Indigenous and Hispanized Thought." Social Science & Medicine 25: 339-346.

MINSA (Ministerio de Salud)
1982 Manual de Parteras. Managua: MINSA.

1986 Enfoque de Riesgo en la Atención Materno-Infantil. Taller Internacional, Managua 9-10.12.1986. Managua: MINSA.

1987a Normas de Atención Prenatal Normal y de Bajo Riesgo. Managua: MINSA.

1987b Plan de Salud 1987. Managua: MINSA.

NEUMANN, Yeshi
1986 "Birth and Tradition. Lay Midwives in Nicaragua's National Health System." Nicaracuan Perspectives 12: 37-40.

OAKLEY, Ann
1977 "Cross-Cultural Practices." In Benefits and Hazards of the New Obstetrics, edited by T. Chard and M. Richards. Philadelphia: J.B. Lippincott.

ORTIZ de MONTELLANO, Bernard
1989 "Syncretism in Mexican and Mexican-American Folk Medicine." 1992 Lecture Series Working Papers No 5. Department of Spanish and Portuguese, University of Maryland at College Park.

PAUL, Lois and Benjamin D. Paul
1975 "The Maya Midwife as a Sacred Specialist: A Guatemalan Case." American Ethnologist 2(4): 707-726.

PILLSBURY, Barbara
1982 "Policy and Evaluation Perspectives on Traditional Health Practitioners in National Health Care Systems." Social Science & Medicine 16: 1825-1834.

SARGENT, Carolyn
1982 The Cultural Context of Therapeutic Choice: Obstetrical Care Decisions Among the Bariba of Benin. Boston: D. Reidel.

1989 Maternity, Medicine, & Power. Reproductive Decisions in Urban Benin. Berkeley: University of California Press.

SCHEPER-HUGHES, Nancy and Margaret M. Lock
1986 "Speaking "Truth" to Illness: Metaphors, Reification and Pedagogy for Patients." Medical Anthropology Quarterly 17: 137-140.

SCHOLL, Edward
1985 "An Assessment of Community Health Workers in Nicaragua." Social Science & Medicine 20: 207-214.

SINGER, Merrill, Hans A. Baer and Ellen Lazarus
1990 "Critical Medical Anthropology in Question." Social Science & Medicine 30: v-viii.

SNARR, Neil, editor
1989 Sandinista Nicaragua: an Annotated Bibliography. Ann Arbor: Pierian Press.

SOLA, Roser and M.ª Pau Trayner
1988 Ser Madre en Nicaragua: Testimonios de una Historia no Escrita. Barcelona: Icaria Editorial.

VAN GENNEP, Arnold
1960 The Rites of Passage. (1908) Chicago: Chicago University Press.

VIISAINEN, Kirsi
In press "Traditional Medicine in Revolutionary Health Care." In Revolution and Counterrevolution in Nicaragua, edited by Thomas W. Walker. Boulder: Westview Press.

WALKER, Thomas W., editor
1985 Nicaragua First Five Years. New York: Praeger Publishers.

1987 Reagan Versus the Sandinistas: the Undeclared War on Nicaragua. Boulder: Westview Press.

WHO/UNICEF
1978 Alma-Ata - Primary Health Care. Report of the International Conference on Primary Health Care, Alma-Ata, USSR. Geneva: WHO.

WILLIAMS, Harvey
1983 "Organization and Delivery of Health Care: A Study of Change in Nicaragua." In Third World Medicine and Social Change, edited by John H. Morgan. New York: University Press of America.

1987 "The Social Impact in Nicaragua." In Reagan Versus the Sandinistas, edited by Thomas W. Walker. Boulder: Westview Press.

WILLIAMS, Harvey, and John McFadden
1989 "The Social Sector." In Sandinista Nicaragua: an Annotated Bibliography, edited by Neil Snarr. Ann Arbor: Pierian Press.

WORSLEY, Peter
1982 "Non-Western Medical Systems." Annual Review of Anthropology 11: 315-348.