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**The Role Of The Traditional Birth Attendant
In The Delivery Of Primary Health Care
In Central Java, Indonesia**

By

Lois J. Chételat

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

**Department of Sociology and Anthropology
Carleton University
Ottawa, Ontario
© September, 1986**

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in the Delivery of Primary Health Care
in Central Java, Indonesia

submitted by

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in partial fulfilment of the requirements for
the degree of Master of Arts

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September 16, 1986

Abstract

For a health care system to be effective it must address two fundamental principles: that of meeting the needs of the vast majority of the population and of providing generally accepted standards of health care. Included with this concept of quality health assurance is the need to treat any malfunctioning (diseased) biological or psychological processes and the necessity of providing an effective response to the psychosocial experience. The objective of this thesis is to examine these two dimensions of health care--the curing of disease and the healing of illness--particularly as it relates to the traditional birth attendant of Central Java in Indonesia. I will assess the ability of the dukun baji (traditional birth attendant of Java) to both cure disease and heal illness

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Part One

Healing, Health Care Practices and Practitioners in the Context of Culture

Chapter 1 Introduction

A mother, a farm worker, had a difficult birth record (three late births). She gives birth at home. At 9 P.M. the mother felt pains in her abdomen and called the dukun pijit (masseur). After the massage the mother felt worse. At 11 P.M. the dukun baji tidak kursus (untrained traditional birth attendant) was called. The mother was waited on constantly and at last, at 11 A.M., the following day, a baby boy was born spontaneously. The placenta was not born and bleeding set in. Then the dukun baji kursus (trained traditional birth attendant) was called. At 4 P.M., after an extended massage the placenta was born. By this time, because of the bleeding, the mother was very weak. Finally, at 6:30 P.M. the mother died. According to results of check-ups in K.I.A. (Health Care Centre for mother and child) there were no signs of medical problems during this pregnancy. The mother had had six prenatal check-ups (Case study #1, Achmad 1984:104).

It was in 1963, in the mountains of Northern India, that my interest in alternate medical systems was first aroused. At that time I was working as a registered nurse in a transient school for Tibetan Refugee children. Under the control of the Tibetan Government in Exile, located in Dharmasala, orphans, and children whose parents were forced by economic circumstances to work at road building in the Kulu Valley, were gathered under one roof, while preparations were made for their transfer to permanent schools. It was my job to care for these often malnourished children with their various and numerous diseases. However, the children and staff (a cook, his wife, a principal and a couple of helpers) did not rely solely upon me for relief from their major and minor

delivery of primary health care

It was in Solo, Central Java, Indonesia, that the need to confront the problem of native healers was brought most forcibly to my attention. As part of my duties as a nurse on a recently organized Canadian medical team for Indonesia, I had to survey two government hospitals (one medical, the other obstetrical) in order to grasp the most immediate nursing problems. While in the delivery room, I saw more women die, in two weeks, on the delivery room table than I could imagine possible, even for a developing country. The hospital staff explained that women, in both the towns and villages, preferred the native midwife to hospital delivery. It was only when a delivery was in such a grave state, when the native midwife could no longer handle it, that the patient was brought into hospital. She inevitably died. Thus, the women refused to deliver in hospitals because they believed they would die. And they did die because they were only brought to hospital when all else had failed. It was then I realized that native healers, especially traditional birth attendants who were very much a part of the problem, must also become a part of the solution.

A second phenomenon aroused my interest. I noticed that nursing staff trained in western medicine tended to treat their own ailments with the local medicine. They simultaneously treated their patients

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with pharmaceutical products from the West while scraping their own skin until it was rough and red with a gold coin in order to cure a similar ailment.

One of the most common misconceptions among modern health professionals is what is referred to as the *fallacy of the empty vessels* (Polgar 1962 cited in Rogers and Solomon: 10). Modern medical education attempts to pour new scientific concepts into their clients, often forgetting that their *vessels* are already filled with their traditional health ideas. It is assumed that a vacuum exists, just waiting to be filled. As a result of this empty vessels fallacy.

few planners seriously believe that the illiterate masses have anything worthwhile to contribute to planning development. They tend rather to treat rural folk as empty vessels patiently and obediently waiting to be 'filled up' with a life-improving compound of more productive technologies--- (Ascroft 1973:23 cited in Rogers and Solomon:11).

Yet in all societies, health care activities - systematically articulated beliefs and values concerning illness and response to illness (Kleinman 1978) - are more or less interrelated and cannot be understood apart from the total context of the society. They must be studied in a holistic manner, as a socially organized response to disease. We speak of religion, language or kinship as cultural systems. In the same sense "we can view medicine as a cultural system, a system of

symbolic meanings, anchored in particular arrangements of social institutions and patterns of interpersonal interactions" (Kleinman 1980:24). In every culture, illness, the experiencing of and response to it, the treatment and the social institutions related to it are all systematically interconnected, creating a totality of interrelationships called a health care system. Involved in this are patterns of belief about causes of illness, norms governing choice and evaluation of treatment, socially-legitimated statuses, roles, power relationships, interaction settings and institutions (ibid 24). Once removed from their cultural context, medical systems are virtually impossible to understand.

Health care systems appear to have evolved as a cultural response to the stresses (personal and social) generated by illness. Because of this, they tend to overlap with other culture adaptive systems and it is not always possible to separate religion from medicine. Religion, however, is a culture adaptive response to a much wider range of misfortune and suffering.

Patients and healers (illness and healing) are all a part of the total configuration of cultural and social relationships, and must be understood in the context of such a system. Knowledge of their legitimate statuses, role interaction, and power relationships, is obtained through an analysis of the total health care system.

Medical systems should be looked at more as conceptual models, and less as mere institutions. How do individuals understand sickness? What are their beliefs as to the cause of illness, their responses to it and their expectations as to the type of care they should receive? How do they perceive, label, explain, and treat sickness? Their responses to these questions are governed by their beliefs and patterns of behaviour in the context of their particular culture. Through the use of the phenomenological model, a researcher is best able to describe such experiences. By "bracketing" or ignoring his own perceptions of what constitutes a medical system, the anthropologist can better describe the phenomena as they are consciously experienced by the participant. It is these experiences which must be considered in the development of any health care plan.

Richard W. Lieban (1977), in an overview on the field of medical anthropology, discusses intersecting interests of physicians and anthropologists. He writes

In the junction of physicians' interest with those of anthropologists, the physician's primary concern is likely to be with the ways in which human behaviour affects the maintenance of health, and the occurrence and control of disease (Roemer 1959). Medical anthropologists have a major involvement in research on these problems, primarily in applied anthropology and etiological and epidemiological studies. But there is another side of the picture, in which problems are

defined not by the effects of human behaviour on the states of health and disease, but by the indications about human behaviour that can be discerned in responses to the states of health and disease. Health and disease are fundamentally connected with the reproduction, quality, preservation, and loss of life. In view of the significance of these phenomena for human societies, it is not surprising that an anthropological study of health and the occurrence and means of coping with disease can involve one deeply in the manner in which people perceive their world, in the characteristics of human social systems, and in social values. In this perspective, medical anthropology is not only a way of viewing the states of health and disease in society, but a way of viewing society itself (ibid 15)

As a nurse who studies anthropology I naturally retain a primary concern for the control of disease, and the preservation of life. Nevertheless, the discipline of anthropology provides a very powerful tool with which to better discern indicators about human behaviour in response to states of health. This, along with an understanding of society and how a people perceives itself, is a prerequisite to the establishment of any type of primary health care. And for a health care system to be effective it must address two other fundamental principles that of meeting the needs of the vast majority of the population, and of providing generally accepted standards of health care. Included within this principle of generally accepted standards of health are two aspects of health care. Firstly, there is the need to treat any malfunctioning (diseased) biological or psychological processes. Secondly it is necessary to provide an effective response to the psychosocial

experience Since illnesses are a cultural response to disease, health care must provide explanations and treatments which are meaningful within a particular culture. Thus, the condition, called *sickness*, has two components: disease and illness. Health care must include both the curing of disease and the healing of illness.

Within the past ten to fifteen years there has been an increasing interest in the use of traditional healers as primary health care workers. These healers, because of their similar socio-economic status, age, religious activities, special knowledge, and skills, are perceived by the local populace as "safe" and "competent". The objective of this thesis is to examine these two dimensions of health care - the curing of disease and the healing of illness - particularly as they are practised by the traditional birth attendant of Central Java in Indonesia. In the first section, the theoretical discussion will examine the relationship between culture and health, healing, and medical practitioners. The second part will deal with the traditional Javanese mid-wife and her role in the delivery of maternal health care in Java. Through the use of anthropological studies and recent data on maternal mortality rates in Central Java compiled by Dr. Januar Achmad (1984) I will assess the ability of the traditional birth attendant to both cure disease and heal illness. From this analysis I will make conclusions and suggest further

areas of study

Theory on health, healing and healers in the context of culture is primarily based on the work of anthropologists in the field of Medical Anthropology (Kleinman 1978, 1980, Landy 1977, Moerman 1983, Tancredi 1983 and Romanucci-Ross 1983 to mention only a few). As well as attempting to understand healing from an anthropological perspective I have looked at the work of psychiatrists, neuro-scientists and physicians to bring a physiological dimension to this subject. In general, information on primary health care is based on the research carried out by the World Health Organization. The work of C. Geertz (1960) and H. Geertz (1961), as well as that of Indonesian anthropologists (Peorwodihardjo et al 1972), serve as bases for the discussion on Javanese healing.

A computer search of I.D.R.C (International Development and Research Centre) programs in the area of maternal infant health care gave me an overview of research which is presently in progress in this field. This past summer (1985) while on a personal visit to Indonesia I carried out research on the thesis topic. In Solo, Central Java, I visited Braya Minulya hospital and spoke with Sisters involved in the delivery of primary health care in that region. I also spent a few hours at the library attached to the Medical School of the University of Indonesia in

Jakarta searching through the *Indonesian Journal of Obstetrics and Gynecology* for material relevant to the thesis topic. Perhaps the most rewarding visit was to the office of the Ford Foundation. Here I was able to obtain a recently completed report by Dr. Januar Achmad *Laporan - Sementara, Studi Kematian Bayi dan Maternal 1984* (Intermediate Report - Study of Baby and Maternal Deaths). Data from this report will be used in the second part of this thesis. Through the Ford Foundation, I was also put in contact with the work of Dr. Henry Mosley of Johns Hopkins University whose research entitled "Child Survival Strategies for Research" has also been helpful.

The universal phenomenon of illness derives its definition from the patient and those around him. Responses to this condition are governed by beliefs and patterns of behaviour, which are in turn rooted in culture. Any attempts to alleviate such a malady must have cultural meaning. It is through the use of the phenomenological model that the researcher is able to transcend the paradigm of his own culture in order to give a direct description of these experiences. And knowledge of such experiences is necessary to improve primary health care practices.

Chapter 2

Health Care Activities In The Context Of Culture

Health care systems are principally concerned with ordering and controlling illness and in giving the experience of illness and treatment a particular meaning. The five major functions of a medical system are

- (1) the construction of hierarchies of health values,
- (2) the shaping of illness as a psychosocial experience,
- (3) the cognitive and communicative tasks of health care, such as labelling classifying and explaining;
- (4) healing (and preventive) activities per se from empirical remedies and technological intervention to symbolic therapies, and
- (5) the medical management of therapeutic outcomes including care, chronic illness, and death (Kleinman 1977:415)

Using these fundamental health care functions, it is possible to describe almost any local system of medicine. And, in order to understand such systems the researcher needs to step outside the cultural rules governing his own beliefs and behaviour, particularly as they relate to health care involvements. To do this the investigator can apply the phenomenological model as a means of description. This allows the anthropologist to confront the phenomena without prejudice of thinking. There must be an accurate description of the phenomena, i.e. that which is given, that which is an objective reference of awareness.

Although it is difficult, the researcher must repress the inevitable habits of thought which obstruct the view of the phenomena. It is an attempt to understand the experience, beliefs and patterns of behaviour, not to prematurely explain them away. Thus, through the phenomenological model a particular experience of illness and treatment of it is best understood.

In his article "What is phenomenology?" Merleau-Ponty (1967) writes

It is the search for a philosophy which shall be a 'rigorous science', but it also offers an account of space, time and the world as we 'live' them. It tries to give a direct description of our experience as it is, without taking account of its psychological origin and the causal explanations which the scientist, the historian, or the sociologist may be able to provide (ibid 357).

Franz Brentano (1838-1917), the forerunner of the phenomenological movement, provided a basis for this philosophical school of thought. His contributions include the notion of self-awareness and intentionality, and the differentiation of the two main classes of existents, mental and physical. This theory holds that mental phenomena have as real and as unavoidable existence as physical phenomena. Brentano went so far as to suggest that mental activities, such as desire, fear, etc., are more real to consciousness than material things such as a table (Roche 1973).

Brentano also established the ontological primacy of some concept of person. Most of the phenomenologists, like Merleau-Ponty, analyse

consciousness in its universal essence, in order to understand individual consciousness.

---Persons have, beside organic and other defining characteristics, the paramount defining characteristic of being unities of consciousness, interpretative centres of sensory and communicative information both in terms of acceptance and of generation of such information (ibid 6)

The anthropologist Daniel E Moerman (1983) in a similar manner constructs what he refers to as a *person theory*.

This theory asserts that there are two kinds of entities 'material bodies' and 'persons' to which two kinds of predicates 'mental' and 'physical' can be attached. 'Material bodies' can correctly have ascribed to them only physical predicates, while 'persons' can have applied to them both physical and mental predicates. (Brody 1977:93 cited in Moerman 1983:163)

According to this definition persons are capable of using symbols in special ways, "specifically in structuring experiences, and generally in participating in culture" (ibid 163). To be a person is to have a mind which is able to use socially shared symbols. With the use of symbols there is self-consciousness, which allows for differentiating processes, processes of noting meaningful contrasts of "noting differences that make a difference".

Considering the process where a person makes determinations about health, we can perhaps following Kleinman (1973) equate 'disease' with 'difference' and 'illness' with 'a difference that makes a difference'. That is, a meaningful difference. It is at this point in the process that diagnosis, either by the patient (based on

widely shared symbolic norms) or by the healer (based on more private, or more technical or more sophisticated sacred norms) becomes critical. For it is at this point that the inchoate disease becomes a meaningful quantum illness, hence understandable, and within the limit of animal mortality, finally controllable (ibid 164).

It is Edmund Husserl (1859-1938), a pupil of Brentano, who is generally considered as the founder of the phenomenological movement. He developed two main concepts. They are: (1) the thesis of the natural attitude or standpoint (*Lebenswelt*) and (2) *epoche* or phenomenological reduction (Husserl 1954). The *natural standpoint* is that which we accept in the course of every day life. It suggests that we must accept certain things 'as real' in order to function in an ordinary every day world. This world of the natural attitude is taken to be an inter-subjective or social one.

However, it is the concept of 'epoche' or phenomenological reduction which is of importance in the understanding of the experience of health and illness, along with its related activities. The epoche is a method of coping with the fact that the 'objective world out there' (reality per se) is without significance, is meaningless, without man's conscious perception of it. In the epoche Husserl requires the suspension of belief in the natural attitude, and a putting of the 'real world' of objects, values, instruments and people 'between brackets'. It is an attempt 'to bracket', to do without them, in order to investigate consciousness.

Schutz writes that the natural attitude is a 'suspension of doubt', the epoche a 'suspension of belief' (Roche 1973:13). In each case it is not so much a question of denying but ignoring, and doing without doubt, and belief respectively

The understanding of health-care systems requires on the part of the researcher a 'bracketing' or ignoring of his own perceptions and beliefs in what constitutes such a system. The primary objective is to investigate and describe phenomena as they are consciously experienced. For the anthropologist it is important to consider the words of Merleau-Ponty:

The world is not what I think, but what I live through. I am open to the world, I have no doubt that I am in communication with it, but I do not possess it; it is inexhaustible. ---Whether we are concerned with a thing perceived, a historical event or a doctrine, to 'understand' it is to take in the total intention - not only what these things are for representation (the 'properties' of the thing perceived, the mass of historical facts, 'the ideas' introduced by the doctrine) - but the unique mode of existing expressed in the pebble, the glass or the piece of wax, in all the events of a revolution, in all thoughts of a philosopher. It is a matter in the case of each civilization, of finding the idea in the Hegelian sense, that is, not a law of the physico-mathematical type, discoverable by objective thought, but that formula which sums up some unique manner of behaviour towards others, towards Nature, time and death; a certain way of patterning the world which the---[anthropologist] -- should be capable of seizing upon and making his own (Merleau-Ponty 1967:360, 370, 371).

According to Kleinman (1980) health care systems are forms of social reality. This reality is constituted from, and in turn constitutes,

meanings, institutions, and relationships which have been sanctioned by society. It is the legitimizing of certain meanings, social structural configurations and sanctioned behaviour which creates the social reality. The result is a system of symbolic meanings and norms governing behaviour, perceptions of the world, communication with others, understanding of external and interpersonal environment and of one's own internal and intrapsychic space. All of this an individual absorbs during the process of socialization (enculturation). This internalization of the system of symbolic meanings occurs within the family and social groupings through such things as education, occupation, rituals, play, and everything else involved in the process of internalizing the norms of a society in which one lives. The individual fashions his personal identity through the internalization of a specific view, and by externalizing it within his own cultural milieu. By doing so he affirms or discovers the same reality. It is a fit between inner (personal) and outer (social) beliefs, values, and interests (ibid 36).

Social realities differ between different societies, social groups, professions, and at times families and individuals. Some societies such as small-scale preliterate traditional ones appear to contain similar social realities. Others, such as Canada, are fragmented, containing many distinct social worlds, coexisting in the larger social environment.

Individuals within the larger reality do not always share the same perceptions, understandings, and acceptance of social norms. Neither may they share the same beliefs about sickness. But the beliefs and behaviours exhibited by the sick person, including treatment, expectations and responses by the family and practitioner, are all aspects of social reality. Like the health care system they are cultural constructions, shaped distinctly in different societies, and within different social structures within the societies.

Illness, a culturally universal phenomenon, derives its definition from the patient and those around him. The diagnosis incorporates the patient's subjective definition which has in turn evolved out of the social fabric. The patient, kinsmen and healer within a specific cultural framework have a perception of what constitutes illness. From this perception there logically follows the curative steps. It is not really necessary to assess the accuracy of this culturally loaded perception.

What is important from an actional viewpoint is not the objective cause or "real" cause but rather what is defined to be the cause. The cause which is meaningful to the patient is the one which sets his mind at rest (Chilivumbo 1976:70).

Within the field of medical anthropology there is a distinction between the two aspects of sickness: disease and illness. *Disease* refers to a malfunctioning of the biological or psychological processes,

while the term *illness* refers to the psychosocial experience and meaning of perceived disease "(Kleinman 1980:72). It is the secondary personal and social response to a primary malfunctioning (disease) in the patient's physiological or psychological status which constitutes illness. Within this definition of illness are processes of perception, effective response, cognition and evaluation directed at the disease and its manifestations. The idea of illness would also include the communication of it, and the resulting interpersonal interaction within the family and social network. "Viewed from this perspective illness is the shaping of disease into behavior and experience" (ibid 72). Health care systems, as a part of the first stage of healing, construct illness from disease. That is, illnesses are the cultural response to disease, one which attempts to provide it with a meaningful form, explanation, and care. The naming of the illness is thus a psychosocial and cultural adaptive response.

Disease can only affect individuals of a population. Illness, however, will often affect others -members of the family, social network, and at times the whole community. In some cultures the illness is believed to affect the family as well as the person. Both are labelled as ill.

As previously stated, disease and illness are explanatory concepts not entities. Yet they must not be thought of as two separate conditions,

rather as a way of discussing a complex set of interrelationships. In general (but not always) professional practitioners tend to use explanatory modes which focus upon the disease, while the laity are orientated towards the illness. Biomedicine is disease orientated, but when applied by the practitioner may reflect a concern for the illness as well

It is through labeling of symptoms that illnesses are socially constructed. By shaping symptoms, sickness, (a condition which infers both disease and illness), is filled with specific meaning and cast into a particular configuration of human action thereby making it into a special cultural form. "That cultural form is illness" (ibid 77).

Cross-culturally, sickness may look roughly the same. Often the illness aspect differs in meaning, and in the quality of the experience. In some instances a pattern of symptoms produce 'culture-bound disorders' by superimposing unique patterns of meaning upon universal diseases. Diseases tend to follow a typical course and to show characteristic features which are independent of culture. Illnesses on the other hand can be unique. They can only be understood in the specific context of cultural norms, symbolic meanings and social interaction

Medical systems emerge as a social response to illness. They are a human attempt to survive disease and delay death. Diseases are never

experienced directly, but as specific "illnesses" prescribed by culture. These "illnesses" are constructs based on belief systems and there thus is an interaction between biological and cultural dimensions. In medical terms, disease (tuberculosis) is caused by biological factors (bacillus) as well as cultural and environmental ones (poverty and malnutrition). There is a complex interconnection between these two dimensions. In any scheme to optimize human health there must be an awareness of this human quality (Romanucci-Ross et al, 1983:X). It cannot be emphasized too strongly that illness, health, healing or medicine can only be completely understood in the context of culture.

Medicine is nowhere independent and following its own motivations. Its character and dynamism depends on the place it takes in every cultural pattern; they depend on the pattern itself (Ackerknecht in Lieban 1977:23).

Although historical studies have indicated that the earliest physicians understood that problems of health were related to social circumstances, modern medicine has become increasingly concerned with the specific cause of disease and micro-organic agents. It has a biological orientation. Freidson (1970 cited in Kleinman 1980:54) has described how the modern medical profession in the U.S.A. (and this can be applied to Canada) has used political and legal means in order to dominate the health care field. In doing so it has forced other healing

traditions to either disband, submit to professional control or retreat into marginal groups. Medical professional organizations became socially very powerful. Homeopathy and other non-professional healing traditions were driven from the field. Osteopathy received a similar treatment but because of its popularity in certain parts of the United States was able to successfully create a professional organization. Chiropractic is considered as a marginal practice but because of so many adherents was never abolished. Midwives who are highly qualified and with years of experience are not allowed to practise in Canada. And both pharmacy and nursing are severely restricted in practice. They receive professional status only by submitting to the authority of the medical profession. The fact that nursing is virtually the only example of a profession that lacks full autonomy remains as a very sore point among the professionals to-day.

Biomedicine has its roots in the modern industrialized nations of the West, although it has spread to the larger more sophisticated centres of the world. Influences which have shaped modern medicine reach back as far as ancient Greece where philosophers in their search for an understanding of reality fluctuated between the idealistic and materialistic view of the world. The pre-Socratic scholars taught a materialistic theory of the psyche, while Socrates introduced the idea of

'psyche' as the seat of intelligence and character. Although Plato was the first to deal explicitly with the problem of consciousness, it was Aristotle who developed a biological materialistic approach to the subject (Capra 1982 : 166). It was not until the seventeenth century that Descartes, Bacon, Galileo and Newton cast the mind-body problem into a form which has since shaped Western thought (Berman 1984 : 14)

Descartes adopted a strict division between "res cogitans" and "res extensa" (Capra 1982 : 164). In other words, mind and body belong to two parallel but fundamentally different realms and should be studied without reference to each other. "The soul or mind should be studied by introspection, the body by the methods of natural science" (ibid : 164)

If Descartes' views differed sharply from those of the Greeks and Middle Ages, so did those of Bacon. Despite the fact that each represented diametrically opposed points of view the ideas of both possessed a commonality. Descartes' empiricism and Bacon's rationalism represent a dynamic relationship which lies at the heart of the Scientific Revolution. Rationalism states that the law of thought conforms to the laws of things; empiricism that you must always check your thoughts against the data, so that you know what thoughts to think (Berman 1984 : 14)

Still this synthesis of reason and empiricism lacked a concrete embodiment, a clear demonstration of how the new methodology

might work in practice; the scientific work of Galileo and Newton provided precisely such a demonstration. These men were concerned not merely with the question of methodological exposition (though each certainly made his own contribution to that subject), but sought to illustrate exactly how the new methodology could analyze the simplest events. the stone falling to earth, the ray of light passing through a prism. Through such specific examples the dreams of Bacon and Descartes were translated into a working reality (ibid 24)

Thus the study of biology, medicine and psychology today are shaped by an epistemology which arose in the seventeenth century. As a result a mathematical mechanistic approach became the means to understanding the human organism. This then created within the western ideological system a belief in the separation of body and mind, and the efficacy of a mechanistic mathematical science

However, it is precisely this issue of the epistemology of the traditional empiricism with its restriction on the kinds of experience which can be studied as well as the kind of evidence which scientists can use to justify knowledge claims which stimulated the development of the phenomenological philosophical thought. Merleau-Ponty, in reaction against dualism theory, developed the concept of embodiment. He expands on Sartre's analysis of the self's body as being both a socially defined thing-for-others and a directive centre which uses instruments situated in space for intentions directed in time. He emphasizes the inter-subjective nature of existence and sees speech and language as a basic bridge between self and others.

Merleau-Ponty realised that a thorough going existentialism which investigates man's existence as engaged with his world could only have one concept of being, and that he called 'etre au monde' or 'being-in-the-midst-of-the-world'. Man's existence was not an essentially divided existence, part angel, and part animal as Descartes and Kant would have us believe. Man as we know him is the possessor of manual and linguistic skills of which only his embodiment as an organic entity, and only his co-existence with other persons could make any sense. The only way he could be pictured as divided is in abstraction from his natural setting, and this kind of abstraction is one thing that existentialism most clearly rejects (Roche 1973:28)

In other disciplines this debate against a dualistic paradigmatic approach continues D.H Laurence writes:

We have lost almost entirely the great intrinsically developed sensual awareness or sense-awareness and sense-knowledge of the ancients. It was a great depth of knowledge, arrived at direct by instinct and intuition as we say, not by reason. The abstraction was not into generalizations or into qualities but into symbols and the connection was not logical but emotional (quoted from Griffith 1982:150).

Griffith expands upon this by stating that this knowledge, reached through intuition, was not merely sensual or emotional experience but real knowledge

It is a sense awareness, emotional experience reflected in the mind, not in rational mind, the abstract intelligence, but in the intuitive mind, the passive intellect. It finds expression not in abstract concepts but in concrete gestures, in images, in prayer, and ecstasy (ibid 158).

If biomedicine based on the efficacy of traditional empiricism tends

to separate conscious activities from biological processes, it is the holistic approach which recognizes "the fact that human beings are constituted of psychic and physical realities which are distinct but not separate. They interact and influence each other in all conscious and subconscious acts" (Ndeti 1965 22)

Many native doctors who practise indigenous medicine may not be as sophisticated as their modern counterpart but they do follow closely the role of the holistic physician. Such practitioners may not only use medicine (herbs) but take into account the powerful influences of family, culture and environment. In describing an African witch doctor (which means 'wisdom' in opposition to sorcerer which means 'sinister') Ndeti writes:

He was well informed about the problems of his environment and possessed practical knowledge of botany (herbstry), pathology, psychology (divination) surgery, animal and plant curative agents, climatology, cosmology, sociology, and psychiatry (ibid 5).

The tendency amongst individuals steeped in traditional empiricism is to explain away indigenous medicine through psychological, historical, or sociological theory. The underlying assumption is that native (or holistic) medicine is based on irrational belief systems; biomedicine on rational clinical data. Yet in a study entitled "Ideology and Order in the Operating Room" Felker (1983) succinctly articulates the beliefs of

modern western man

Some of these are an orientation to action and task, reliance on science and technology, utilitarianism, expertise, individualism, success, progress and change, physical attractiveness, 'man controls nature', cleanliness, comfort, daily life organized by the clock, male orientated society, family, education, the 'curability' of illness and so forth (ibid 352)

There is an "inordinate belief in the medicine's efficacy because of its use of technology, its 'scientific' approach to diagnosis and highly publicized surgical 'miracles'" (ibid 352) Added to this ideology is the view of the body as a human machine. It is composed of many parts which once diseased or worn out can be replaced, repaired or removed surgically in order that life may go on.

Kleinman suggests that health professionals have developed their own dogma, which he refers to as professional ideology. This ideology is usually maintained with blind conviction even in the face of evidence to the contrary. The following is a summary of the professional dogma: A belief that health related activities undertaken by patients or members of other sectors of the system are dangerous, and should not be tolerated. Biological problems are 'real'. Psychosocial and cultural aspects are a secondary order phenomena thus less 'real' or important. Doctor-patient encounters are between experts and the ignorant. The doctor's role is to tell and give orders, the patient's to listen and

passively comply. The doctor is most responsible for patient care. And finally, there is the suggestion that lack of compliance with the medical regime is frequently regarded from a professional's perspective as a moral offense (Kleinman 1980:57).

Thus, all health care systems, including those based on biomedicine can only be fully understood in the context of their culture. In medical terms, there is this complex interconnection between disease (caused by biological factors) and the cultural dimension. The epistemological approach of the western world has permitted the medical profession to make outstanding progress in the disease related aspects of modern medicine. The success of biomedicine should not be underrated. Yet in the process of achieving these great advances against disease, the second feature of sickness, that of illness has been overlooked. The perceptions of the patient, those beliefs, experiences and notions as to what constitutes illness are considered as inconsequential. The emphasis is on the curing of disease and scant attention is paid to the healing of illness. Through the phenomenological model a researcher, concerned with the delivery of primary health care is able to transcend those habits of thought which grow out of a specific cultural paradigm and to study the experiences of the patient. The purpose is not to describe the objective (biological) cause but to understand the cause

which is meaningful to the patient. Only through treatment geared to this cause, can the patient's mind be put to rest. Yet, very little research has been done in the area of healing. Nevertheless any scheme to optimize human health which does not take into account the illness factor will fail in its attempt to provide generally accepted standards of health care

Chapter 3

Towards An Understanding of Healing

Beyond the study of endocrine response or immunological defences medical researchers have devoted very little attention to the most basic health care process, that of healing. Healing does not appear to be regarded as a core function of a health care system, to be studied on its own terms in a social and cultural context (Kleinman 1980:33). In fact, it is often dismissed as quackery. This is understandable in the light of the epistemology of traditional empiricism with its restrictions on the kinds of experiences which can be studied. The great philosophical upheaval of the renaissance introduced Cartesian scientific materialism into all human activities, particularly in the theory and practice associated with health care. How often, as a medical professional, have I heard the expression, "It's all in his head!" This derogatory remark suggests that in spite of the patient's feelings of illness, there is nothing wrong with him. It is rooted in an ideology which, in an effort to separate mind and body, emphasizes intellect and logic, while belittling emotion and intuition. The patient's perceptions of his sickness is of little importance.

Yet in the past few years, scientists have begun to question a research method which breaks up complex phenomena into components, in

which allows for a bi-directional flow of energy. The brain at one level supports the higher mental functions which give rise to consciousness and interpersonal relationships which in turn allow the individual to relate to kin, social and natural environment and culture. At another level and in an opposite direction, the brain through the CNS, autonomic nervous (ANS) system, and endocrine system, regulates the functioning of organ systems, individual organs, cells, and even sub-cellular processes. In turn, the brain as an organ of the body, is subject to influence by the very regulatory processes it initiates as a response to internal and external stimuli (ibid 319). The question remains as to how the brain takes nonphysical stimuli (symbols) and translates them into physical events which in turn activate nervous and endocrine functions which affect body function.

It is the anthropologist, C D Laughlin et al (1985), who provides an answer to this perplexing problem. In his description of *dots* as the basic unit of experience, he suggests that the experience arising in the sensorium ("the functional space within the nervous system wherein cognized reality is portrayed in moment-by-moment experience", ibid 4) is comprised of "innumerable, almost infinitesimal and momentary particles" i.e. *sparks, yods, bindus*. Phenomena in all the sensory modes are composed of dots and it is particularly easy to confirm this in

The Three Stages Of Healing

Figure 2 a (Romanucci-Ross et al
1983: 79).

assessment of each case study the anthropologists were able to draw conclusions as to which patients appeared improved, those who did not, and those who felt better although their symptoms remained.

Other anthropologists, such as Romanucci-Ross, Meorman and Tancredi (1983:78), have attempted to find a conceptual link between the process of healing and the physical consequences of healing itself. To do this they have constructed a three stage theory of healing.

(a) Experience: The patient experiences severe abdominal pain. This may frighten him and cause stress. The fear is a "conceptual consequence" which in turn leads to the "physiological consequences" of stress. Since a stressful experience can compound fear, there is a feedback loop within the system. The next normally accepted step is to analyse the situation, i.e., diagnosis.

(b) Diagnosis: The patient, either in co-operation with his family and/or physician, develops an explanation for the abdominal pain. The diagnosis feeds into the conceptual-physical loop with its specific consequences. It can either soothe the patient ("it's only gas pains") which in turn has a calming effect on the feedback loop, or it can terrify the patient ("its cancer I am afraid") which then intensifies both the conceptual and physiological aspects.

(c) Treatment: From the diagnosis comes the treatment. Again, the treatment has both conceptual and physiological manifestations which can vary from minor to major depending upon the treatment, and results of the treatment. If in the patient's eyes the treatment appears to be effective, there is a positive feedback. The patient develops a faith in the therapy which generally expands into a belief in the medical system. This can "simultaneously induce healing via pathways 5-7-8" (ibid 78).

A second conceptual understanding of healing is the homeostatic model which is elaborated by Antonovsky (1979). Homeostases is a state of equilibrium of the internal environment of a being. There is relative constancy to the body fluids, blood, lymph and tissue fluid as to their chemical and physical properties (Taber, 1958). Homeostatic "mechanisms are in constant, automatic operation, responding to the constant disturbances of homeostases that living involves" (Antonovsky

1979:71) This homeostatic condition can be upset. At some point in time a demand is put upon the organism which at that moment it is not capable of meeting. In order to cope an additional source of energy is required. At this time there is no assumption made of pain or unpleasantness. It is a *stressor* situation, "a demand made by the internal or external environment of an organism that upsets its homeostases, restoration of which depends on a non automatic and not readily available energy-expending action" (ibid:72)

The response to a stressor situation, Antonovsky refers to as tension. It is accompanied by either a negative or positive response, or both. Tension can lead to *stress* "either a momentary or prolonged excitation of the system reactivity to a stressor or event" (Laughlin:7) which has a pathogenic effect upon the organism, or it can be transformed into a salutary consequence which in turn has a healing effect.

Whether tension is transformed into stress or takes upon itself salutary consequences depends upon the individual's *sense of coherence*, "a global orientation that expresses the extent to which one has a pervasive, enduring, though dynamic feeling of confidence that one's internal and external environments are predictable, and that there is a high probability that things will work as well as can reasonably be expected" (Antonovsky 1979:123). It is this sense of coherence in

relationship to life-events which accounts for the manifestation of a healthy outcome

A sense of coherence is a positive psychological world view which contains the crucial elements of confidence and hope. It is a direct participation by the individual in influencing and controlling personal events and processes as far as it is humanly possible. In contrast to this world view is that of hopelessness and helplessness, a giving up, or into the stressor situations of life.

Despite the fact that a great deal is known about psychophysiological mechanisms, scientists in the field of biomedicine have not understood how the organism, presumably through the brain and central nervous system, "is able to transduce nonphysical symbolic (i.e. meaningful) stimuli into actual physical events in the central nervous system, physical changes that in turn can activate pathogenic autonomic and endocrine mechanisms, and by so doing disturb (healthy) life processes" (Reisen 1977:317). However, having said that, I would suggest that they have taken the physiological processes associated with the brain and central nervous system (CNS) and analysed them in such a manner as to reach a more coherent understanding of the mind-brain and brain-body relationships.

The brain and CNS occupy a central position in a two-way system

which allows for a bi-directional flow of energy. The brain at one level supports the higher mental functions which give rise to consciousness and interpersonal relationships which in turn allow the individual to relate to kin, social and natural environment and culture. At another level and in an opposite direction, the brain through the CNS, autonomic nervous (ANS) system, and endocrine system, regulates the functioning of organ systems, individual organs, cells, and even sub-cellular processes. In turn, the brain as an organ of the body, is subject to influence by the very regulatory processes it initiates as a response to internal and external stimuli (ibid 319). The question remains as to how the brain takes nonphysical stimuli (symbols) and translates them into physical events which in turn activate nervous and endocrine functions which affect body function.

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the building blocks of objects and movements in the visual field

Perception is "the abstraction and reinforcement of invariant features in the unfolding field of dots" (ibid 6). In order to portray an internalized world of phenomena, the sensorium takes the dots and orders them into recognizable configurations. This notion of dots can be equated to Lonergan's (1958 442) concept of "prime potency." "Dots are the prime potency of the cognized world without the manifestation of which the whole intricate fabric of form, anticipation and action would cease" (Laughlin et al 1985 6,7)

Laughlin et al conclude by writing

Furthermore, experience is comprised of dots whether or not the stimulus triggering neurocognitive processes is external or internal to the organism. Both the perception of a car 'out there' and a car 'in a dream' involves forming phenomena within a field of dots. The role of dots in perception is analagous to the particles that make up the image on a T V screen or in a newspaper photo. We are ordinarily not aware of these particles, but they are there to be seen if we look for them. Dots are introspective events that are momentary to perception, and yet which contribute to much more enduring events such as forms, patches of color, textures etc. It is apparent to the contemplative mind that all verbalized thoughts, images, precepts and even perceptual space, the edges of forms, and colors in all hues (including black) are comprised of dots. Yet dots are seen to have no permanent form or enduring substance. They are transitory, impermanent and without stable structure but are vibrant, scintillating and alive. They provide the finest grade of sensorial 'texture' of which awareness is capable of resolving within any sense modality (ibid 7)

It is through the phenomenological method of description based on

phenomenological reduction that Laughlin (1986) develops his theory of dots. Since biomedicine adheres strictly to a positivistic view, it has not yet understood the relationship of symbols to nervous and endocrine functions which affect the body. Yet empirical research in this area has come a long way and the following facts have been clearly established:

(a) The endocrine system can be activated by psychosocial stress through pathways which connect the cortex to limbic system, to midbrain and hypothalamus and from the hypothalamic nuclei to anterior pituitary. The pituitary is then stimulated to release trophic (nourishing) hormones to the many endocrine glands.

All of the endocrine glands are activated in the same manner. Changes in bodily functions and resistance to pathogenic forces can only be understood as an endocrine response which is either a synergistic (stimulating) or antagonistic interrelationship between various hormones. The pathogenic forces are resisted by the immunological defenses. These defenses are concentrated within the white cells of the blood, and lymph systems. The blood transports antibodies and phagocytes, consisting primarily of neutrophils, monocytes and lymphocytes which engulf and destroy invading organisms (a process of phagocytosis). It should be noted that although the endocrine system, through the relationship of various hormones, controls the immunological

factors within the blood and lymph, the blood in turn carries several substances which help regulate hormonal and metabolic systems (Anthony 1955:338).

There is a direct relationship between ego defenses (in the psychological sphere) and the intensity of the activation of the hypothalamic, pituitary trophic processes in the physiological sphere. The neuro-endocrine system is orchestrated in such a fashion as to ensure the body's optimum efficiency in resisting a pathogenic invasion. It can be concluded that there is a direct link between social psychological factors, the neuroendocrine system, and the immune system. The next logical step is to relate psychosocial factors to the breakdown in the immune system (sickness), or the restoration of health.

(b) Secondly, there is a need to examine pain. Pain can be defined as a protective mechanism of the body. Pain is an unpleasant reaction to massive stimulation of the sensory nerves calling attention to a derangement of function, disease, or injury of part (Taber 1958).

Antonovsky (1979:58) suggests that pain is any state or condition of health, general or specific, in which an individual feels mild, moderate, or severe pain.

"Two major brain pathways have been implicated in the perception of pain" (Snyder 1977:48). Sharp, localized pain appears to run along a

pathway which evolved at a later time (mesospinothalamic pathway) and consists of a cluster of cells, on each side of the thalamus. The thalamus is an important centre for integrating sensory information. This type of pain is poorly relieved by opiates. A second, duller and more chronic, less localized pain is conveyed along a pathway which evolved earlier (paleospinothalamic pathway). It consists of many interconnected nerve cells which in general lack fatty myelin insulation and as a result conduct the impulses slowly. This type of pain is relieved by opiates. The pathways descend along the midline of the brain including the central matter of the brain stem and central part of the thalamus. The sites of the distribution of the enkephalin opiate receptors (which can produce the appropriate analgesics) is strikingly parallel to the paleospinothalamic pathway.

There is also a high density of opiate-receptors binding in the amygdala, the corpus striatum and the hypothalamus, all of which are part of the limbic system, a group of brain regions that largely mediate emotional behavior (Snyder 1977: 48).

(The amygdala is a mass of grey matter in the anterior portion of the temporal lobe)

Opiate receptors are also located within a dense band in an important way station for the upward induction of sensory information related to pain within the spinal cord. Thus, Snyder concludes that opiate analgesia

is mediated in both the brain and spinal cord

A variety of evidence now indicates that enkephalins are neurotransmitters of specific neuronal systems in the brain that mediate the integration of sensory information having to do with pain and emotional behavior and that subserve unidentified functions as well---it has been possible to show that enkephalins have an analgesic potency similar to that of morphine (ibid 51,56)

The importance of the enkephalin receptors is that they both link with the mediators of painful and emotional behaviour, and can produce analgesics similar to that of morphine.

Bannerman (1983:83) in a discussion of research into acupuncture has written that within the past two or three years Chinese scientists have succeeded in developing techniques for the isolation, extraction, and determination of endogenous morphine-like substances. They have also been able to artificially synthesize the highly active substance encephalin, as well as its derivatives. Through experiments on both man and animals these scientists have shown the analgesic effect of acupuncture may be partially antagonized by the morphine antagonist naloxone.

(c) The final area of interest is that of the relationship of the trophotropic and ergotropic system of the autonomic-somatic integration and their influence on the emotional states and levels of consciousness (Gellhorn & Kiely 1972:399). Ergotropic response consists of increased cardiac rate, blood pressure, muscle tone; i.e. excitation in

the cerebral cortex (arousal) and inhibition of gastro intestinal and motor secretion function. The trophotropic pattern on the other hand consists of a reduction of cardiac rate, blood pressure, sweat secretion, pupillary constriction (inactivity) and increased GI motor and secretory function (ibid 400).

Three stages are recognized in nervous system *tuning* (Lex 1977 329) *Tuning* is the learned (or conditioned) pattern of the ANS to a particular stimulus in the environment (Gellhorn 1967: 110 cited in Laughlin 12) In the first stage, due to a response to a stimulus, the activity of one system increases, while the other system decreases. If the stimulus continues past a certain threshold, there is a "reversal phenomena". The activity of the sensitized system increases. Continued stimulation leads to a third stage in which both systems are simultaneously excited (Lex 1977: 329).

This excitation of both systems can lead to maladaptation or a disruption of the homeostates. It is usually in response to a particular stimulus in the environment. Such tuning of the nervous system usually occurs in early life and can be readjusted under proper conditions through *retuning* (Laughlin 12)

There are a number of means of retuning the system: common rational mediation, heightened awareness, abreaction, and driving mechanism

(ibid 13) However, it is retuning by driving mechanism that is of most interest. Tuning and retuning are accomplished by operating directly upon the sympathetic and parasympathetic systems. Repetitive stimuli are used to activate first one, and then the other autonomic system until both are simultaneously excited (3 stages of tuning). As a result the autonomic nervous system has been retuned towards a particular stimuli. Cross-culturally the retuning technique is a part of healing rituals (ibid 13,14). The techniques for retuning (drumming, chanting, etc) incorporated into healing rituals are considered by the society as a necessary response to illness. This response is not only rooted in a system of beliefs but, in the experience itself. The patient feels better. Thus, the particular healing ritual is meaningful to the patient. It is one that sets his mind at rest.

Up until this point I have dealt with three distinct systems - endocrine, immune system, the opiate receptors of the brain and spinal cord, and the trophotropic, ergotropic aspects of the autonomic nervous system. What I wish to emphasize is that all are a part of the whole, the totality of the brain and central nervous system. They are not separated, but integrated, functioning as "one" and consistently feeding into each other in order to maintain the homeostatic condition of the body as a whole.

Bearing in mind both the conceptual understanding and the presently accepted scientific data, i.e. the functioning of the CNS, ANS, and endocrine system in illness, it is now possible to construct diagrams which indicate the pathways to illness and to health

According to the diagram an individual's feelings of depression, despair, hopelessness, or helplessness, or, hope, joy, or anticipation are recorded in the limbic system "The limbic system subserves the experience of emotion and motivation" (Laughlin 11) The limbic system then influences the body through a major pathway which leads to the hypothalamus. The messages received by the hypothalamus are translated in two ways. Firstly, the part of the hypothalamus which is most responsive to human emotional stress, participates in controlling the immune system. Secondly, the hypothalamus regulates the activity of the pituitary gland, which in turn regulates the remainder of the endocrine system. The endocrine system controls the vast range of hormonal function throughout the body

The immune system, the body's natural defense, destroys invading organisms. Suppression of the immune system leads to disease. In this diagram, emotional stress or hope mediated by the limbic system, can either suppress the immune system leaving the body susceptible to disease or mobilize the system against pathogenic forces.

A

Pathway to Sickness

B

Pathway to Health

Figure 2:b
(based on Simonton
et al. 1981)

The hypothalamus, in response to either stress or positive emotional states, triggers the pituitary gland in such a manner as to alter the hormonal balance of the body. Imbalances, for example, in adrenal hormones has been shown to create a greater susceptibility to carcinogenic substances (Simonton et al 1981: 78). On the other hand, the pituitary gland, having received messages from the hypothalamus sends messages to the rest of the endocrine system in order to restore the body's hormonal balance. Thus, according to the emotional state of the individual, there is either a body break-down and sickness, or normal homeostases and healing (ibid: 76 to 83). It is the limbic system which is integral to all the activities, essential for the self preservation of the organism.

The term *limbic* is derived from the Latin word *limbus*, meaning ring or 'forming a border around'. Hence the name of 'limbic lobe'. Because the limbic lobe surrounds the brain stem and is connected with the cerebral hemisphere, Paul Maclean in 1952 named it *limbic system* on the basis of its function (Restak 1979: 46).

Early research on brain physiology indicated that its importance lay in a function related to smelling. Later experiments on parts of the limbic system suggested a much more complex role. Experiments performed on a monkey in 1939 by two University of Chicago researchers

provided conclusive evidence that the limbic system is the area most concerned with emotion. Further studies of epilepsy noted behavioural changes from either destruction or stimulation of parts of the limbic systems

In the last twenty-five years brain scientists have refined their knowledge of the limbic system. Although it occupies only the lower one-fifth of the brain, its influence on behavior is unbelievable extensive, with all its parts tied bidirectionally to the hypothalamus, a collection of all groups with two connecting outposts: the septal areas in the front, and the amygdala along the sides. Think of the limbic system as a wheel, with the cortex marking the tire around it, and the hypothalamus, with its two outposts marking the hub and its spokes. Brain and behavior experts have linked this interconnecting wheel arrangement to hormones, drives, temperature control, reward and punishment centers, and one part of it, the hippocampus, to memory formation. ----If you like simple ways of thinking about complicated issues, think of the limbic system as the center for the four F's - feeding, fighting, fleeing, and sexual behavior (ibid 48,49).

All stimuli (i.e. psychosocial stress) pass from the cortex through the limbic system and in the process activate:

- 1) the release of hormones in the endocrine glands, thus causing tissue dysfunction, or function, according to the type of stimuli.
- 2) an increase or decrease in the immunological defences, according to the type of stimuli
- 3) the production or inhibition of enkephalin opiates (analgesics similar to morphine) in times of pain. It can be concluded that the limbic system which is in turn controlled by social emotional contents,

influences directly the process of illness or health. If the technique of tuning and retuning the sympathetic and para-sympathetic systems, as practised in specific rituals, is added to this understanding, a clear picture emerges of the important relationship between symbols and the biology of the being

Fenkler (1983), in her study of the Mexican spiritualist therapy, drew several conclusions. Of these, two are important to this discussion. The first indicates that illness from which a quick recovery is expected can be cured with biomedicine and physical manipulation. However, prolonged illness requires some form of symbolic management which cannot be provided by biomedicine (ibid 82)

Antonovsky (1979:24) suggests that there are two medical approaches. The first deals with disease - that which medicine says is wrong- and the second with illness - the patient's subjective definition. It is a dual problem which involves both the curing of the disease and the healing of illness. Biomedicine deals with the curing of disease. Yet a complex interconnection between these two dimensions (the curing of disease and the healing of illness) is required if health care systems are to achieve their desired goals.

Recent research indicates that the epistemological base of traditional empiricism is not as firm as it used to be. Mind and body can

no longer be studied without reference to each other. Emotions do affect the body. They are recorded in the limbic system which in turn influences the immune and endocrine system. Psychological world views, such as those which contain elements of hope and confidence, are translated into physical well-being. In contrast to this, feelings of hopelessness and helplessness, can lead to a suppression of the immune system with a resulting breakdown in the body's defenses. Sickness, soon follows.

Chilivumbo (1976) writes

What is important from an actional viewpoint is not the objective cause or "real" cause but rather what is defined to be the cause. The cause which is meaningful to the patient is the one which sets his mind at rest (ibid 70)

And when the patient's mind is at rest, there is a positive world view, a sense of equilibrium and well-being. In this condition normal homeostases resumes and the body begins to heal. The emotions and beliefs of the patient contribute directly to the healing process.

If the patient participates in healing his own body, what then is the role of the physician? Cross-culturally the duties of the medical practitioner vary. Nevertheless, there is one common element: the practices of the physician are linked directly to the epistemology of the society. Biomedicine is rooted in a scientific materialism which

emphasizes experimental and statistical validation. Intellect and logic are supreme. Medical practitioners in this society are more orientated towards the curing of disease. In contrast to this, Ayurveda considers body, mind, and soul as complimentary to one and other. Its source is that of Hindu philosophy and this medical practice is considered divine in origin. "Ayurveda means the science of life" (Kurup 1983: 50).

Practitioners of Ayurveda recognize that human beings are constituted of spiritual, psychic, and physical realities which are distinct but not separate. As a result the physician takes a holistic approach. Thus, to understand the role of the physician, it is necessary to once again "bracket" one's perceptions of what constitutes the duties of a medical practitioner in order to describe the phenomena as it is directly experienced.

Chapter 4

Healers, Shamans And Other Medical Practitioners

A mother, age 19, a farmer's wife, is pregnant and at term. She has had oedema of the legs since the 4th month of pregnancy. During her pregnancy she has had three checkups at the clinic of Kaliangkrik. At the end of the 9th month she suddenly lost consciousness, her whole body became stiff, her teeth were clenched and she vomited. The family called it an epileptic seizure. As well as calling a nurse they called the dukun Kesempuhan (an old healer). The nurse who arrived first gave the following assessment: the mother is unconscious, body stiff, foot oedemic, diagnosis abdomenable typhus. The nurse gave no medication but asked the family to bring her to hospital. The nurse returned to the hospital but failed to notify the midwife and doctor.

The family did not bring the mother immediately to hospital as they awaited the dukun Kesempuhan who lived outside the region of Kaliangkrik. When the dukun arrived he gave her fresh water and told the family to read the Surat Yasih (a letter from the holy Koran which is read normally to ask God Almighty to do the favor for the family, either to heal the sick person quickly or to take the person quickly to the side of God).

It appeared that the advice of the dukun was taken more seriously than that of the nurse. Believing it was an inauspicious day for the mother's trip, the journey was postponed. The mother died before she could be brought to hospital. (Case Study #25 Achmad 1984:115).

An individual becomes ill. He may simply ignore the sickness or attempt to treat it without the aid of a specialist. If treatment is sought from a medical practitioner the patient may choose from various types of specialists; herbalists, diviners, shamans, masseurs, as well as those who practise allopathic (biomedicine) or traditional medicine, such as Ayurvedic (Indian) or Chinese medicine. The therapist may combine

several skills within his practice, or specialize in one. Choice of a practitioner may not only depend upon the specialization, but also upon the reputation of a particular individual. Some therapists achieve considerable fame while others practise in comparative obscurity (Lieban 1977:22)

Sickness is defined as having two constituents: disease, which refers to the malfunctioning of the biological or psychological processes and illness, the psychosocial experience which has meaning for the patient. Homeostasis is a state of equilibrium of the internal environment of a being. The purpose of any medical treatment is to restore a state of equilibrium to the internal environment of a sick person. To do this, the physician must both cure the disease, and heal the illness.

Yet, all practitioners of medicine do not follow these two steps. There are those who are more orientated to psychosocial causes. These practitioners look to the causes of illness as being sensate agents (deities, evil spirits, sorcerers, etc.) Shamans and diviners are an example of this type of practitioner. Others are more orientated to biological causes of disease. An example of this is the practitioner of biomedicine. And there are those doctors who practice holistic medicine. They look to both the biological as well as the psychosocial causes. Practitioners of traditional medicine (Ayurveda and Chinese medicine), as

well traditional birth attendants fall into this category. Nevertheless, although the physicians differ in their orientation and their method of treatment, their purpose remains the same. to restore normal homeostases and a sense of physical well being to the patient

The term *healing* is often treated as synonymous with the activities of a practitioner, therapist or physician. Yet, I would prefer to apply it to a specific form of therapy. Although it is a single therapy it treats the whole person. It is an ancient practice and cannot be monopolized by any one religion. The actual act of healing is based upon the healer's beliefs. However, despite the diversity there is an underlying common principle. According to this principle all beings are from a single energy that has many names.

Brahma, Allah, Tao, God, Great Spirit, to mention only a few. In this energy we live and move and have our being. When it is apparently moving it travels in waves; when apparently still it exerts fields of force. In healing the knack is to be still and become a channel for this energy. In this state the suction produced by a genuine desire to get well draws energy to the person needing healing. The healer does not heal, but only provides a means (Forbes 1983: 166).

Healing can be active (self-healing) or passive, that is performed by one person on behalf of another. If the healer and healee are compatible, the patient will feel better after the healing, although the disease may not have been cured. The patient tends to have a greater

ability to cope with his problem. Forbes estimates that one-third are completely cured and one-third partially relieved of their condition (ibid 167). He does not indicate whether these figures represent healing cross-culturally or only in western society.

Recruitment into the role of a therapist may occur through one or more of a number of different pathways. In biomedicine the primary requisite is academic achievement plus the ability to pay. Ethnomedicine has a much broader basis for choosing its candidates. An individual may be selected by others, his parents, relatives, other healers, tribal elders, or by the spirits or gods. He may inherit his role from a parent, or even from within a hereditary priesthood. A future medical practitioner may apprentice himself to a healer, borrow, buy or steal secret medical knowledge, rituals and paraphernalia. There is also the possibility of seeking entrance into a healing cult or guild. In the great medical traditions of India and China, the training is long and comprehensive. A student enters into a spiritual relationship with his guru. He learns how to diagnose illness by observing his teacher, and he memorizes medical texts that are explicated by the guru. Spiritual accreditation is frequently an attribute. Yet this does not necessarily mean a lack of medical knowledge (Lieban 1977:23).

In other cases no formal training will be required. A person may

undergo a profound emotional experience involving symptoms which inspire awe and fear and signify spiritual power. He may receive a divine calling through a dream, trance, or hallucination, sometimes induced through drugs or deprivation. After recovery from an illness, a being may be qualified for membership in a cult. He will then dedicate himself to this specific healing cult. If an individual makes a miraculous self-recovery from an experience or condition that normally would kill or permanently disable, he can then be considered as a candidate for the role of medical practitioner. Often congenital, or acquired physical disability, or deformity such as epilepsy, blindness or a fixed penetrating stare or gaze are qualities required by a practitioner. And finally exceptional personal traits (intelligence, emotional control to a high degree, story-telling, or great courage) are the means of attaining the role of therapist within specific societies (Landy 1977:416,417).

Bánnerman (1983) suggests that there are four main categories of traditional practitioners. In the first category he would place those who have received a fully integrated training in modern and traditional systems of medicine such as Ayurveda, Unani and Chinese medicine. Secondly, according to this classification, are those trained mainly in traditional medicine but have some elementary knowledge of modern medicine. These workers practise in small rural communities using

traditional medicine in general, and modern biomedical drugs in emergency. In the third group he places traditional practitioners who have no formal training but do have diplomas from a particular traditional system. They practise only traditional medicine. The fourth group consists of those therapists who practise traditional medicine after several years of apprenticeship with an established practitioner. They have no institutional training or qualifications. In this category are the traditional midwives and herbalists (ibid. 320)

This system of classification is based on formal training rather than on various types of specialization. It fails to recognize those individuals such as shamans (male or female) who receive their calling from a divine source and are instructed directly in healing, divination, and prophecy by their spiritual contacts. They in turn serve as mediums to communicate their utterances to the mundane world.

A more useful classification would be that of Foster (1983). He looks to the "causes" of illness. In the first major category of causes he lists those characterized by the purposeful intervention of sensate agents (deities, evil spirits, sorcerers), who for whatever reasons, seek out a victim who then becomes ill. He calls this category *personalistic*. Aggression or punishment is directed against a single person as a consequence of the will and power of a human or supernatural agent or

being

In contrast to this category stands that of *naturalistic* causes. In this category illness is explained in impersonal, systemic terms. Included within this are diseases as described in biomedicine, the intrusion of heat or cold and their loss from body with a resulting upset in equilibrium, the balance of humours, the *dosha* (the three basic constituents of the physiological system, motion, energy and inertia) of Ayurveda and the yin and yang of Chinese medicine (ibid 19)

According to this classification particular therapists are associated with each category. Shamans and priests with supernatural attributes are associated with the personalistic causes. "The primary role of shaman, priest or witch finder is to identify the deity, ghost or other agent that has caused the illness and then to determine how to placate or overcome him" (ibid 20). Therapy is believed to have no effect until the causal agent is found.

In contrast to the supernaturally endowed therapists, the practitioners associated with naturalistic causes usually acquire their knowledge and skills through extensive study either from older practising curers or through formal institutional training. Thus two classes of curers emerge: those with supernatural or magical powers who diagnose (i.e. identify the efficient cause) and who also administer

therapy and those who make diagnoses based on natural causes and administer the appropriate remedies

It is perhaps necessary to emphasize that classification systems are imposed upon data by analysts. In many cultures illnesses are seen to be caused by both personalistic and naturalistic causes. This holds true even for those who use modern western medicine. Often, in traditional medicine, there are 'levels' of causality. For example, in Tibetan medicine, illness caused by ghosts or evil deities is combined with theories on heat and cold and their loss from the body. Also within societies, there may be 'layers' of beliefs and practices. Within European countries (and North America also) there is the obvious upper stratum of medicine based on allopathy. Yet a major underlying substratum of "folk" medicine that largely invokes natural and supernatural agents is an integrated part of the total health care system.

From these two categories of causes it is possible to describe four main groups of medical practitioners. There are those who treat illnesses due to: (A) Personalistic causes including (1) Shamans (2) Diviners and (B) Naturalistic causes including (1) Practitioners of traditional medicine - Ayurvedic, Chinese, and Unani medicine (2) Practitioners of Allopathic medicine (biomedicine). There is a fifth group which must also be considered, that of the traditional birth

attendant. Over two-thirds of births in the world are delivered by local birth attendants who are not trained in biomedicine but rather in a traditional system of birth. "In some rural areas they are the only source of assistance and care, and deliver over 90% of the births" (Cosminsky 1983 1942). In the remainder of this chapter I will profile each of these five groups

Shamans

Of all the practitioners of medicine that have been studied by anthropologists, it is the shaman who has received the most detailed scrutiny. Shamans receive their calling from a divine source and are instructed on healing, divination and prophecy, often through their spiritual contacts. They serve as mediums between the spirit world and their patients. Most shamans tend to regard their power as a sacred trust and social obligation, refusing to resort to harmful magic. They possess special secrets or semisecret knowledge, some of which may not even be shared with other shamans.

The medical doctor/anthropologist Arthur Kleinman (1980), in his extensive study of medicine in Taiwan, describes in detail the *tang-ki* (which means literally "divining youth"), the shamans of Taiwan. These shamans are a part of a great Asian tradition of shamanism that includes Japan and Korea, and which originally extended across China into what is

now the Soviet Union. It is also connected with similar traditions in Tibet. The popular ideology declares that young men or women are chosen by the gods to manifest the gods' wish to 'save the world' (ibid 211).

The tang-ki tradition is frequently an hereditary occupation. Kinship is the basis of the healing role. If the practitioner does not possess an elaborate geneology of healers, the family will manufacture one in order to conform to the health care system's ideology. Having three generations of practitioners makes a shaman well-qualified. He then possesses more secret remedies, greater esoteric knowledge and other valuable 'property'.

The ideology states that a shaman is poor and usually illiterate. He has often been cured of an incurable illness by his god. He then establishes a Confucian style master-disciple relationship with the deity which cannot be ended if the shaman wishes to remain healthy. The tang-ki will spontaneously go into a trance and while in the trance is able to cure otherwise incurable illnesses. He remains ignorant of what has happened. He charges no fee but receives a donation from his client. It is not the shaman who heals but the god. The shaman refers to himself as the 'child' or 'son' of his god. For both the shaman and his client healing is the most appropriate demonstration of the practical

efficacy of their religious beliefs (ibid 212)

Kleinman observed the work of twenty-five shamans. All of the tang-kis which he studied came from lower-class backgrounds; most were illiterate, possessing only rudimentary education, four-fifths were men and all were from rural villages. Of these shamans he observed, he interviewed personally and evaluated the mental status of ten

None exhibited any evidence of significant psychopathology nor gave any history of major psychiatric problems. Most were rather remarkable individuals who possessed strong personalities, and many adaptive coping skills. They were adept at quickly assessing and managing life crises and personal difficulties, were as effective at interpersonal communication as at ritual manipulations and were recognized as such by neighbors and clients (ibid 214).

Kleinman's observations argue against the view that shamanism provides a socially legitimated role for individuals suffering from schizophrenia or other psychiatric or neurological disorders.

Diviners

A second group of medical practitioners who specialize in treating sicknesses due to personalistic causes are diviners. Divination is a process whereby the diviner obtains knowledge of secret or future things by means of oracles, omens, or astrology, or from contact with superhuman or divine sources (Coppo 1983:124). This practice dates back to the earliest periods of the history of mankind (Babylonia, Assyria and Greece) and is still found in all cultures whether or not industrialized.

Therapeutic divination "may be defined accordingly as a practice which makes it possible to call upon the 'superindividual consciousness' by means of a culturally codified technique for the purpose of interpreting the origin of disease, indicating remedies necessary for its treatment and predicting its course" (ibid 125, 126)

To profile the diviner I will again turn to the research work of Kleinman (1980). In his study of Taiwan medicine he described in detail the work of the *Ch'ien* interpreter. *Ch'ien* or fortune papers contain the personal or family fortune, usually expressed through archaic poetry with obscure classical allusions. The *ch'ien* paper tends to be divided into separate sections or different *ch'ien* papers cover the major subjects with which people approach the temples' gods: health, business, marriage, children, etc. Firstly, the person prays to the god(s). Then the individual throws a divining block until it falls in such a manner as to indicate that the god has agreed to the questions about his fate. Prior to casting the divining block, the person selected a bamboo stick with a number on it. He now uses this number to obtain a fortune paper (*ch'ien*) with the same number. Since, for most people these papers are uninterpretable, the individual must turn to specialists, generally old men who through their connection with the temple occupy prominent booths in the temple.

Ch'ien interpreters are middle-aged or elderly men, mostly literate members of the lower class, retired or part time workers who have family or friendship ties with the owners of the temple. Some receive a small stipend from the temple while others work for altruistic reasons. They are viewed by the public in a popular manner as fairly low-level temple employees who perform a routine but needed service. They are not thought of as possessing any special power, nor do they inspire the same awe or fear as shamans. Yet they are respected as individuals with a wide practical knowledge, and an understanding of the folk religious system.

There are several types of specialists who practise ch'ien interpretation. Some use the eight characters associated with a person's year, month, day, and hour of birth in order to divine his fate. Others refer to the classic text, I Ching (Book of Changes). The essential element of ch'ien interpretation is the use of random events, like the throw of a numbered bamboo stick, to answer problems where the ultimate causes and courses of events are unknown and uncontrollable. Thus reality becomes objectified by attributing it to a disinterested process. Through divination immediate clinical problems are linked to cosmic systems.

From his discussions with ch'ien interpreters Kleinman indicates that

these diviners tended to be rather free in their interpretation. Most try to lessen the impact of bad readings. Some suggest that the client choose again as he has not followed the rules correctly. A few indicate that they draw upon their sense of the person and his problem in their interpretation. One ch'ien interpreter confessed that he frequently disregarded the paper and interpreted solely on the basis of what he felt would do the client the most good. Often the advice given was culturally conservative and was based on experience with similar problems and an astute assessment of the situation (ibid 245).

Kleinman suggests that ch'ien interpretation accomplishes many of the same things as psychotherapy and supportive care:

They reduce anxiety, bolster morale, affirm models of behavior, give practical advice, and help in solving concrete problems. They help clients to integrate past events and to anticipate future problems, and they reduce personal fears, and a family's sense of threat in making necessary decisions (ibid 245).

The Practitioner of Traditional Medicine

Practitioners of traditional medicine tend to treat illnesses with naturalistic causes although there can be some overlap into those sicknesses which have personalistic causes. The profile I will discuss is that of the practitioner of Tibetan medicine. I do so because it is the traditional medical system with which I am most familiar, and because it tends to incorporate both Ayurvedic and Chinese medical practices.

Reching Rinpoche (1976) writes that Tibetan medicine is rooted in the medical text called Vimalagotra. It was taught by Buddha Sakyamuni at his first sermon at Sarnath. Historically it is traced from the time of a legendary King g'Nahkhrigeanpo (prior to 650 A.D.) when two notable doctors entered Tibet from India, married Tibetan girls and founded a medical hierarchy which continued until the 15th Century. All medical knowledge was passed orally until almost 650 A.D. when the Tibetans learned writing. In the 15th Century two medical schools were established in the vicinity of Lhasa. From 1876 to 1959 access to Tibetan medical schools by western visitors was prohibited. With the occupation of Tibet by the Chinese in 1959, the flight of His Holiness the Dalai Lama to India, the establishment of his residence in Dharamsala, and the opening of the Tibetan Medical Centre in the same place, Tibetan medicine has now become available to interested foreigners.

According to Tibetan medical philosophy all phenomena, animate and inanimate, are composed of five cosmic energies - earth, water, fire, air and space. Both the disorder and the medication have the same material composition and treatment consists of using the law of similarity and dissimilarity. Therapists will treat cold disorders with hot remedies and hot disorders with cold remedies.

The healthy body consists of five aggregates (form, feeling,

recognition, volition, and primary conscious) which are balanced with the three humours (air or wind, bile and phlegm). Diseases are due to imbalance in phlegm, wind and bile or to a combination of imbalance. There are seven physical energies (nutritional essence, blood, flesh, fat tissue, bone tissue, bone marrow, sperm or ovum). Diseases pass through stages (skin, flesh, channels, bones, solid organs and hollow organs) before they are manifested.

The Tibetan medical practitioner has three main methods of diagnosing diseases. They are (1) visual observations (tongue, urinalysis, etc.) (2) by questioning and (3) through the pulse. It is the diagnosis by pulse which is the most intricate and relied upon method of diagnosis. The night prior to the pulse taking both the physician and patient must abstain from all things which might disrupt their mental and physical harmony. Early in the morning the pulse is read on the radial artery of each wrist approximately one inch from the wrist crease. The practitioner places three fingers parallel and straight on each artery spaced so that each are not touching, nor are they too far apart. He uses both hands. Firstly, he reads the left wrist of the male patient (the right of the female). Each palpating finger of the physician is divided into two aspects, inner and outer, thus giving a total of twelve divisions from which the pulse can be read. In reading the pulse the practitioner takes

into account the season, cosmic energies and solid and hollow organs as all have an influence over the pulse readings

Causes of illnesses vary Dhonden (1980 4) states that greed, hatred and close-mindedness are the primary causes of disease. For our seasons, evil forces, diet and wrong behavioural patterns are those factors which cause illness to ripen and materialize

The physician employs two means to alleviate sickness. They are chemical and mechanical therapy. The use of drugs based on animal, vegetable and mineral ingredients, is a highly developed science within Tibetan medicine. To these chemical ingredients the physician adds substantial curative powers. He does this by transforming himself into a specific medical deity, by blessing the prepared medicines and in carrying out a rite called *Mendruk* (medical empowerment). An adept physician can also intone mantras in the hundreds and transfer these powers of the mantras to the medicine, thus adding further spiritual curative powers.

Mechanical means of restoring health include massage with oils and ointment, bathing in hot springs, bloodletting, moxa and the insertion of a needle. Moxa is a technique which involves burning. Burning can be done with the aid of a specific fragrant dry herb, a gold, silver, copper or iron spike, or with precious gems.

The physician will also expound in great detail upon diet and the prevention of illness by proper conduct. There are hundreds of rules relating to everyday conduct, conduct during the seasons, dietary rites and rules to the avoidance of obstructing natural impulses.

My contact with the Tibetan physicians was on a friendly, casual basis. Therefore, I cannot pretend to give any psychological profile as Kleinman has done. Yet I did have a general impression of a medical system that is layered. At the lower level there is the practitioner who treats the masses of the people. He appeared as a simple, not particularly well educated individual who tended to understand that power resides in deities, good and evil, and in demons which inhabit everything and live everywhere. It is these demon-gods which are responsible for illness and misfortune. His treatments would consist of both chemical and mechanical therapies as well as other means of placating the spirits.

At a higher level and among the more learned of the society (i.e., priests or monks) illness was seen to be caused by psychological factors such as passion, hatred, and delusion. For these particular individuals, power resides in the human psyche. And although they too used chemical and mechanical therapies a much greater emphasis was placed on healing through meditation.

Practitioners of Allopathic Medicine

Allopathic medicine, or as it is frequently termed to-day, "modern", "Western", scientific" or "biomedicine", is defined as "that discipline of medical care advocating therapy with remedies that produce effects differing from those of the disease treated" (Canary 1983.90). This term is in contrast to homeopathy which is "the system of treatment employing minute amounts of remedies that in massive doses produce results similar to those of the disease being treated" (ibid 90)

In discussing allopathic physicians it should be remembered that it is only within the past one hundred years that specific qualifications are required for practising medicine, nursing, etc. And it is only within the past half century that because of adoption of the scientific method that allopathic medicine has bloomed. With this has come the development of formal centres of education, training and research, as well as the formation of groups which have organized national and regional societies, formal training courses, and the development of criteria for certification and licensing. Prior to this sudden blossoming of biomedicine physicians were content to diagnose through measurement of body temperature, respiration and blood pressure, x-ray studies with little use of contrast material and relatively simple chemical determinations of body fluid.

The modern development of a wide range of accurate and sensitive analytical chemical measurements, the application of the principles of physiology to life support and measurement systems, the application of radio nuclides to both the study and the treatment of body functions and dysfunctions, the ability to provide extensive surgical modifications and to graft and transplant tissue and organs, the rapid and vast increase in knowledge of immunology, and chemotherapy and the development of potent antibiotics have all led to a sharply focused interaction between the attending physician and the patient with disease (ibid 91).

Along with this, there has been a vast expansion in the concepts of rehabilitation, preventive medicine and specialization. Physicians who specialize, e.g. in surgery, medicine, obstetrics/gynaecology, paediatrics and psychiatry, require a deeper, more specific training for progressively longer periods of time.

Because of the extreme degree of specialization within allopathy it is difficult to profile a practitioner of this medical practice. Instead it is simpler to describe the patient interaction with the various specialists. The first contact an individual has with the physician is in the form of the paediatrician's care immediately following delivery. If complications occur a specialist in the discipline of neonatology may be called in. The relationship with the paediatrician may continue until the age of 18-20. At this time this specialist is replaced by the primary care physician or generalist. A female may choose to visit a gynaecologist. This doctor-patient relationship may on occasion require the services from consultants in other disciplines of medicine, i.e. P

cardiologist, obstetrician, surgeon, etc. Finally, at the end of his life our patient may be treated by a physician trained in geriatrics - "the specialized medical field of the dysfunctions and diseases of the elderly" (ibid 93) In rural areas the pattern may be different. The family doctor serves as the primary care physician throughout the lifespan of the individual

The usual doctor-patient interaction involves a number of factors including: individual identification, a history of the present medical problems, details of past medical problems, a physical examination, and after an evaluation of the complaint, recommendations for both symptomatic relief, and the performance of measurements designed to confirm the doctor's diagnosis. Some sort of therapy may be instituted. In addition to advice about the specific complaint and recommendations for treatment the doctor may make recommendations concerning the patient's environmental and social activities as well as suggest certain measures of preventive medicine. In general, the practitioner will not attempt therapeutic action which will disrupt the patient's life and employment. Yet on some occasions the doctor may suggest that alterations in the patient's situation are indicated and he or she will participate in making the required decisions.

The Traditional Birth Attendant

Since over two-thirds of the world's babies are delivered by traditional birth attendants who have never received any training in allopathic medicine, it is necessary to have a better understanding of this particular medical practitioner. The term traditional birth attendant is defined as "A person (usually woman) who assists the mother at childbirth and who initially acquired her skills delivering babies by herself by working with other Traditional Birth Attendants," (De-Lourdes Verderese and Turnbull 1975:7). She usually practises in rural rather than urban areas.

This practitioner is normally an older woman, almost always past menopause, and who must have had at least one child herself. Living in the community in which she practises she operates in a restricted area, limited to her own village, and possibly those adjacent. She holds power and authority over everything connected with the conduct of childbirth.

Many of her practices and beliefs are dependent upon the culture's religious and mystic traditions. Rituals reinforce these beliefs in an attempt to maintain a balance between the absence of illness and a state of ill-health. She adheres rigidly to dietary rules, and transmits ideas concerning the nature and effects of food. She is often a herbalist who uses herbs, roots and barks "to relieve discomfort during pregnancy, to

speed up delivery, as abortifacient and for treating dysmenorrhea and certain types of illness (ibid 7)

A typical traditional birth attendant is illiterate, with no formal training. She has learned her trade from a member of her family, kin group, or under the tutelage of an older traditional birth attendant. Her first clientele are usually members of her family, or close friends. Once she establishes a reputation she may be called by women outside her immediate group. She may also inherit as clients daughters of women who were attended by her instructor.

In most countries, because she has not legal recognition and is unregistered, she practises outside the law. At the local level she has freedom to pursue her activities, unrestricted and accepted by the community she serves. She is paid according to the material resources of the family. Often this practitioner depends for her livelihood on other work besides birth attendance.

In her role the birth attendant not only provides physical help but acts as a reassuring figure who understands and accepts the concepts and traditions of her clientele. She is a respected individual whose influence is felt in the daily life of the family and community. Her services may begin long before childbirth and continue throughout a stated period after childbirth. Although some common elements exist in all practices, as a

rule there is great variation according to the culture in which a particular practitioner operates. Even within the same cultural groups with a common core of beliefs and customs, there can be variation in techniques and advice (ibid 7,8) I will discuss in more detail the actual practices of the traditional birth attendant from Central Java, Indonesia, in the next two chapters

Because of the rapid development of modern medicine within the past half century there is the tendency within the West to view it as the medical system which affects the lives of the vast majority of the world's population. This is in fact a false view. To-day traditional or indigenous medicine includes a much larger number of practitioners on a world-wide basis than that of biomedicine. Such practices would range from individual and often secret procedures to highly developed systems (Canary 1983:91). In fact, according to Bannermann(1983), these particular health workers offer services to the disadvantaged groups that total about eighty percent of the world's population, individuals who have no easy access to any other permanent form of health care (ibid 320).

For health care systems to be effective they must meet the needs of the vast majority of the population and to provide them with a generally accepted standard of health. Considering the above mentioned statistic,

it is therefore necessary to accept the fact that in spite of the defects, traditional medicine has a major role to play in primary health care

The traditional practitioners are the true community workers in this society. They invariably have the confidence of the people, and whatever their levels of skills, it is essential that they should understand the real health needs of their community. There are, however, certain major constraints regarding the use of traditional medicine in primary health care. These are not insurmountable and, with goodwill on all sides, they can be overcome (ibid 320)

In his study of the affect of culture on the psychology of the individual, Bateson writes

I shall speak of culture as *standardising* the psychology of the individuals. This is probably one of the fundamental axioms of the holistic approach in all sciences: that the object studied-be it an animal, plant or a community-is composed of units, whose properties are in some way *standardised* by their position in the whole organization..... Culture will affect their scale of values. It will affect the manner in which their instincts are organised into sentiments to respond to various stimuli of life (quoted from Berman 1984: 201)

Through the process of coding, ideologies, (perceptions, world views, paradigms) are formed within the culture and minds of individuals. These individuals are coded to understand 'reality' in a manner that makes sense in both emotional and cognitive terms. The coding of this reality is directly related to a process of learning. In effect these 'realities' become articles of faith or ideology. If a person, for example, is raised with a Cartesian perspective, he will relate to his social and natural environment according to this view. He will test his environment

on the basis of this particular paradigm in order to obtain positive information. If his premises are not validated he will not necessarily abandon his world view, but will classify it as an anomaly. By doing this he removes any threat to his view of reality. Neither the witch doctor nor the surgeon gives up magic or science when his methods fail, as they often do" (ibid. 214)

Health care systems are one form of social reality. Through the labelling of symptoms, illnesses are socially constructed and can only be understood in the context of the culture's norms, symbolic meanings and social interaction. The patient and physician, within the specific cultural framework, have a perception of what constitutes illness. What is important to the patient is not the objective cause, but rather what is defined as the cause—the cause which is meaningful to him. Treatment of the culturally defined cause puts the patient's mind at rest. This in turn leads to a sense of emotional and physical well being.

An examination of the neuroendocrine and immune systems indicates that the emotional state of the patient affects the outcome of the sickness. Feelings, of either hopelessness and helplessness, or joy and hope, are recorded in the limbic system. The limbic system influences normal homeostases through neuro pathways which are linked to both the immune and the endocrine system. These systems, in response to

stress or positive emotional states, either create a greater

✓ susceptibility to disease or restore the body's normal homeostases. The emotions and beliefs of the patient contribute directly to the healing process

Thus, there are two factors which must be considered in treating sickness-the curing of disease and the healing of illness.

Cross-culturally, practitioners of medicine differ in their approach. Some are more orientated towards the curing of disease, others towards the healing of illness. Traditional practitioners tend to have a holistic approach, in that they seek to cure the disease and heal the illness.

I have suggested that traditional birth attendants practise holistic medicine. They not only provide physical help, but understand and accept the concepts and traditions which are important to their clientele. In many countries, they are the primary health care workers. For example, in Java and Bali, 87 percent per annum of all births are delivered by traditional midwives (Rogers and Solomon, 74). Therefore, it is necessary to examine the effectiveness of their health care services. It is obvious that they meet the needs of the vast majority of the population. However, the second fundamental principle of an effective health care system must also be addressed. Do they provide generally accepted standards of health care?

The second section of this thesis will be an examination of the role of the traditional birth attendant (dukun baji) in Central Java. In dealing with her practices, I will focus on the two aspects of treating sickness. Does the dukun baji treat both the physiological as well as the psychosocial problems associated with child birth, and how adequate is the care? Through the use of a case study, I will address the second principle involved in the delivery of health care, that of providing quality medical assistance.

Part Two

A Case Study of the Traditional Birth Attendant in Central Java

Chapter 5 The Traditional Medical System of Central Java

Within societies, there are 'layers' of beliefs and medical practices. In most third world countries, there is a government controlled health care system based on modern western medicine. This upper stratum of medicine, usually practised in urban centres, is but a veneer imposed upon the major underlying substratum of traditional medicine. And it is the practitioners of this traditional medicine who serve about eighty percent of the world's population, the disadvantaged who have no easy access to any other form of health care (Bannerman 1983:320). Within some countries, practitioners of traditional medicine are recognized and incorporated into the government controlled health care system. In Indonesia, although traditional medicine remains outside the system, the dukun baji is accepted as a primary health care worker and as such receives formal training. Therefore, rather than including the traditional birth attendant in the discussion on traditional medicine, I will examine her role more fully in the chapter relating to the official medical system of Indonesia.

For health care systems to be effective, they should not only meet the needs of the vast majority of the population, but must provide quality health assurance. According to this thesis, quality assurance includes both the curing of disease and the healing of illness. To assess whether

these two prime requisites are met, I will do two types of analysis. Through the use of the phenomenological model, I will examine the role of the dukun baji in meeting psychosocial needs. And through a data analysis of maternal mortality rates in the district of Kaliangkrik Central Java, Indonesia (research completed by Dr Januar Achmad, 1984) I will assess the ability of the dukun baji to meet the biological needs. Combining the evaluations from both analyses, I will then offer some conclusions. Since the practices of the dukun baji are thoroughly embedded in culture, it is firstly necessary to examine the traditional medicine.

Any investigation of a traditional medical system requires the anthropologist to confront phenomena without prejudice of thinking. There must be an accurate description of phenomena as experienced by the participant and the researcher must suppress the inevitable habits of thought which tend to obstruct the view of the phenomena. Through the phenomenological model, the anthropologist expresses the beliefs and patterns of behaviour of the cultural informant. He does not prematurely explain them away.

To understand the traditional Javanese health system it is necessary to examine its historical origins and the cosmology in which it is immersed. Even with this, only generalizations can be made. --To

discuss the details is risky, for individual variation in beliefs about illness and spirits is great. Sources differ and informants within sources differ in opinions" (Monograph 5, 1974:84). A look at its beginnings will give a sense of the Hindu Ayurvedic tradition, which, through time, has become interwoven in a complex health system based on a cosmology of spirits and power.

In old Javanese literature, the written records of medical practices are called *usada*. This term is derived from the Sanskrit word *maha-usada* (great medicine). It is suggested that the works originated during the 3rd to 15th centuries, a period of Hindu influence in Java. Original records of Javanese traditional medicine are believed to still exist within the royal courts, with *dukuns* (traditional Javanese physicians), and within old Javanese families (ibid: 83).

Ayurveda is a system which considers the body, mind, and soul as complementary to one and another. All the physical attributes, physiological processes in the human body, and the pathogenesis of various diseases, as well as their symptoms, are explained by a theory of *Tridosha* - the three basic biological elements, motion, energy and inertia - and seven tissues - body fluids, blood, muscular tissue, adipose tissue, bone tissue, nerve tissue, bone marrow, and generative tissue, sperm and ovum. These three basic biological elements, derived from the

five basic physical elements (earth, water, fire, air and space), constitute the bodies of all living creatures. A balanced state of the Tridosha is health, imbalance disease.

Ayurveda defines a healthy person as one in which there is a balance of humours, body tissue, body function and gratification of senses. It considers human beings in their totality and in their subtle relationship with the universe. In order to promote and maintain this equilibrium involved in good health, Ayurveda prescribes specific routines: daily, nightly, seasonal, and ethical routines, and the regulation of diet, sleep and sex. It is not merely a medical science but a way of life (Kurup 1983:50).

Yet, it is the Javanese cosmology, a concept of cosmic unity, which is the dominant theme in a system of medicine based on powers and spirits. Boundaries are very important. The most significant and dangerous cosmic powers come into play in the border between two spheres. They evoke all the dangers and ambiguity as described by Turner (1979) in his concept of liminality. It is believed that at dusk and at noon the spirits are particularly active. If a person is about at these times he may unwittingly provoke or disturb them. It is also on the border between the dry land and water that certain spirits live.

Borders, however, do not only allow for the transfer of power but are

a means of containment. It is a Javanese belief that all things are embodied with power, defined as "concrete, homogenous, constant in total quality and without inherent moral implications"(Anderson 1972 cited in Wessing 1978:23). The cosmos, an undifferentiated whole, is a container in which power is stored. And all entities, including the human body, are vessels of power within the cosmic power. In the universe there is a principle of flow of cosmic power. It is the function of the cosmic centre to draw power from the cosmos, only to return it to the cosmos. Through this principle the vitality of the system is maintained.

This cosmic power, which is the vitality of the universe, is contained in all entities. But not all beings contain equal amounts of power and individuals can influence the amount of power they hold. Acquisition of powers is dependent upon one's status on earth. It may also be gained through knowledge. All knowledge leads to power. Yet, it is esoteric knowledge which is considered the more efficacious. The greater the capacity to hold power, the greater one's capacity to distribute it, and thus, the greater one's importance in the community.

Power must be contained if it is to be useful and not dangerous. And it is definitely dangerous if it is not contained. It is during life-cycle ceremonies as well as other rituals when a person is described as passing from one domain to another, that danger can occur. During this

transitory period there is a gap in the boundaries between two domains (ibid 158). It is then that the *slametan*, "the Javanese version of what is perhaps the world's most common religious ritual, the communal feast is held" (Geertz 1960: 11). The slametan represents the reassertion and reinforcement of cultural order, and the power to hold back the forces of disorder. In a subdued dramatic form it states the values of the Javanese peasant culture:

the mutual adjustment of interdependent wills, the self-restraint of emotional expression, and the careful regulation of outward behavior. And it is at just those points in Javanese life when the need for the statement of these values is greatest, when the spirits and non-disorder they represent are most threatening, that the *slametan* tends to occur (ibid 29).

From the complexities of a traditional medical system and a cosmology based on power, boundaries, and containment, two dominant themes emerge. They are: (1) the loss of one's vital energy combined with (2) the entrance of evil spirits which then occupy the empty space

"When a *setan* enters you, it chases out your own spirit (he said he didn't know where it went to - just 'away') because it struggles with the setan and loses because your soul is weak, and so you become insane. When you are cured - with the aid of a *dukun* - the soul comes back, struggles with the setan; the setan loses, departs, and you are well again. You have been reorganized," he said (ibid 98).

Everywhere in Java there are spirits. Some are ancestral guardian spirits, others inhabit special places such as ancient ruins, burial

grounds or near unusual natural objects. Certain people have personal spirits. But it is the spirits which possess the body and cause illness which are of particular interest. Spirits have the capability of snatching the soul from the body, although, in general, one tends to have a milder form of possession. This occurs when an individual unwittingly intercepts a spirit that is on a journey from a distant place. Because of the loss of the vital force called *semangat*, the body is empty and open to intrusion. Any one of a number of spirits that happens to be around can enter the body and cause trouble.

Semangat is described as "a sense of strength, decisiveness, confidence or as a feeling of goodness and helpfulness, a sense of well being" (Monograph 5, 1974:85). It could be compared to Antonovsky's (1979) sense of coherence. It is the belief among the Javanese that this *semangat* can be strengthened through spiritual discipline - fasting, meditation and staying awake. It leaves the body permanently at death, and temporarily during the night when one dreams. Trauma, or a sudden shock, will frighten it out of the body. Children have less *semangat* and therefore must be protected.

For all Javanese, things associated with the body - saliva, blood, tears, hair, teeth, etc., contain some of this strength (*semangat*). A patch of hair is always left near the fontanel so that the *semangat* will

not be lost, leaving the child unprotected against evil spirits.

He described another of these *djimats* (amulets) to me. When the baby is newly born, the palms of its hands are wet with a kind of white oil. One blots this up with a tiny piece of kapok. Soon afterwards the baby will have its first bowel movement. 'The faeces are always black' said Wirgo 'like black rice porridge'. You keep this and put kapok in it. In a day or so the stub of the umbilical cord falls off, and you add that to the collection. On the thirty-fifth day he gets his first haircut, and you put the clippings in the collection too, and you save the whole business, and later when the child is about 15 years old (if he is ill, or for general protection against illness, or general spiritual strength), you go out and buy him a gold ring which is the same weight as all this stuff and then he wears the ring and eats the stuff (he can put it in a banana to make it go down easier) and the child will be strong. He won't have to go to a specialist, for he has his own *djimat* (Geertz 1960:104).

The Javanese recognize a second cause of illness. It is incorrect behaviour. Any willful or inadvertent neglect of protective rituals leaves an individual open to illness. For some Javanese, it is necessary to keep the baby's fontanel covered with a mixture of onions, chili peppers and mashed coconuts. This will prevent evil spirits from entering the head and causing illness or death.

The reasons for using specific foods in rituals and as treatment or prevention of sickness is not explained in texts on Javanese medicine. Yet, it is a concept which coincides with the alchemical world view which permeated medieval consciousness. According to alchemy, all things have a relationship with all other things. These relations are one of sympathy and antipathy (similar to the Ayurvedic idea of similarity &

and dissimilarity)

Men attract women, lodestones attract iron, oil repels water, and dogs repel cats. Things mingle and touch in an endless chain, or rope, vibrated. . . by the first cause, God (Berman 1984:62)

The difficulty consists in deciphering the relationship of elements. In the 'doctrine of signatures', the sixteenth-century chemist Oswald Croll explains that the mind of God, through the stars, impressed itself on the phenomenal world and thus, knowledge had the structure of divination or augury. 'Divination' should be taken literally. The alchemist finds the Divine behind all appearances. " Croll gives as one example the 'fact' that walnuts prevent headaches because the meat of the nut resembles the brain in appearance" (ibid 63)

A second great renaissance magician Agrippa von Nettesheim (1533) expanded upon the 'doctrine of signatures'

If you wish to promote love, says Agrippa, eat pigeons, to obtain courage, lions' hearts. A wanton woman, or charismatic man, possesses the same virtue as a lodestone, and topaz weakens lust. Everything thus bears the mark of the Creator, and knowledge, says Agrippa, consists of 'a certain participation', a (sensuous) sharing in His Divinity. This is a world permeated with meaning, for it is according to these signatures that everything belongs, has a place (ibid 63, 64).

It is probable, that the use of foods in rituals, and as a means of preventing and treating illness in Javanese society, is rooted in a similar world view. Such beliefs have become embedded in the cultural system and are used long after anyone remembers the reason for them.

The final causes of illnesses are those recognized as physical causes. There are always the obvious broken bones, toothaches, and the like, but there are also less specific physical causes. They are *darah kotor*, dirty blood, *kurang darah*, blood shortage, and *panas mlebu*, heat, and *masuk angin*, wind.

Dirty blood is considered to be caused by either bad food-spoiled or too peppery-or by emotional problems, anger, greed resulting in frustration of one's wishes, envy or jealousy. The symptoms of dirty blood are general sluggishness, rash, boils or a dark mind, confused, and suspicious thought, or sudden passion.

Less blood is traced to nagging fear, anxieties and depressions that cannot be explained. It manifests itself as weakness, fatigue, and pallor. A last variety of illnesses is caused by air, heat or foreign objects (nails, glass, human hair) entering the body (introduced into the stomach by sorcery). Air in the body produces symptoms such as a cold, indigestion or general aches and pains. Heat in the body leads to localized pain, vomiting blood and convulsions. Although, those individuals, who are most susceptible to the above mentioned illnesses, are the spiritually weak, anyone may have air or heat enter the body.

This connection between spirituality, emotional stability and physical health is a theme which is emphasized by traditional holistic

medicine. Adapted to the Javanese cosmology, it is presented as an empty body, one which can be entered easily by spirits. If an individual becomes severely depressed, or confused and disorientated, his soul becomes empty. An empty soul is a vacant container, a place where dangerous powers can find new habitation.

Within the Javanese society dukuns have specialized roles. They can be midwives, sorcerers, magicians, healers, shamans, seers, fortune tellers, advisers or family counselors. Each has a specific name or can go under the title of dukun. Dukuns who are principally identified with the medical system are *dukun baji*, the midwife, *dukun japa*, the healer who uses spells, *dukun jampi* who uses herbs and mixtures to heal, *dukun susuk* who heals by inserting golden needles under the skin, and *dukun tiban* who by divine calling has temporary healing powers. This is not an exhaustive list as the specialists are quite numerous.

The *empu* is considered by some Javanese to be the real specialist as he practises medicine as an art rather than as a profession. In general, dukuns receive payment for their services, and it is the fact that the *empu* does not, which differentiates him from the others. Some dukuns claim to charge only if the treatment is successful. Within the Javanese medical system there is the concept of *cacog*. It carries with it the idea of fitting, as a lock does a key. A medicine which heals an illness

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is cocog. A patient and healer who are compatible are cocog" (Monograph 5, 1974:193). And it is understood that it is correct to seek out another practitioner, if a particular patient/physician relationship does not cocog.

This concept of cocog is rooted in the Javanese world view. Geertz (1960:14), in discussing the slametan, emphasizes the fact that the Javanese tend to state implications of social behaviour in psychological terms according to their ultimate effect on the individual's emotional behaviour. In a slametan everyone is treated the same. No one feels lower or different from anyone else. In this state of equilibrium an individual is happy, not ill or confused. There is an absence of aggressive feeling towards others or emotional disturbance. As such the powers are retained within the human body and there is no empty vacuum into which wandering spirits can enter. This, according to traditional medicine, is a balanced state, one in which the individual is in harmony with the universe. It is a state in which health is maintained. Cocog suggests that this equilibrium must be a part of the dukun/patient relationship. If this harmony between a patient and healer does not exist, healing cannot begin to take place.

The first responsibility of the dukun is to diagnose the disease. He/she has three diagnostic tools which are used with some variation.

and often in combination numerology, meditation and analyses of symptoms. And there are, besides the dukun baji, whom I will discuss in detail in the next chapter, three types of dukuns, defined according to their method of acquiring medical skills.

The first type of dukun bases his ability to diagnose and treat on a body of knowledge called *ilmu* (science). The *ilmu* is carefully guarded and passed on through generations to those members of a family who are capable of dealing with the knowledge and the power which accompanies it. It stays within the family and a select few take it on as their responsibility. The *ilmu* is generally considered to be a kind of abstract, knowledge, or supernormal skill which can be learned from another dukun, or in some sort of magical way be transmitted more directly than through teaching. Geertz (1960) writes

On Sunday morning we stopped at the house of Abdul's sister, who had dropped in at our house the day before on her way out to (a near by village) where their father has been dying for the past ten days. She said what was holding things up was that the breath (which the Javanese regard as the seat of life) was still inside of him and hadn't yet come out. She felt that it was probably trying to come out, trying to come out, and trying to come out, but hadn't been able to make it. She felt that it probably had left the stomach and that it was now in the throat and struggling to get free and when it finally did, when it finally came out, he would be dead. Then someone who could bear it and was watching at the right time would attempt to swallow it in order to take over the *ilmu* of the old *hadji* (ibid 88)

Geertz continues by describing the process through which this

abstract knowledge or supernormal skill is transmitted

What one does is wait for the final expulsion of the breath (known by the appearance of saliva at the lips, but the *ilmu* itself has no shape and can't be seen) and then put one's lips to those of the dying man and catch his magical knowledge (*kepintaran* - literally "cleverness") in one's mouth and swallow it. The old man evidently has lots of *ilmu*, as one can tell by how rich he is. He got the power in the first place from a *kijaji* (Koran scholar and teacher) up by the north coast. He went to this *kijaji's* school when he was but a boy, and the *kijaji* taught him the *ilmu*, which involved secret meanings for Koranic passages. The *kijaji* would write down passages and explicate them to the young man and tell him to commit the knowledge to memory and never, ever, to write it down again. This went on for some time, evidently, and then the *hadji* came home and became rich, lived a long time and the like - all due to this *ilmu*. That is why it would be a great loss if it merely escaped into the air and got away and why Abdul, her brother, has been at the bedside more or less continually for the past two or three days (ibid 88)

A second type of dukun is one who, after years of practise, is able to diagnose through intuitive insight during meditation. The dukun while meditating will go into a trance, clear his mind entirely of any 'picture', until he senses what the disease is and what the cure should be.

Although the diagnosis occurs through an intuitive process, the cure can be concrete.

I asked him for an example of someone he had cured. He said there was a woman in (a nearby village) who had had an enlarged swollen stomach for three years. She went to several dukuns, but none could help her. She went to several doctors, but they all wanted to operate and she wouldn't permit it. Finally, after three years, she came to Dono (the informant) out at his house with her husband, very desperate. Dono meditated for a while and figured out that the toilet at her house, which had been built just three years

before, had been built on land that didn't want it there (because, evidently, spirits were living there), and so he told her that if she moved the toilet over to the other side of the house she would get well. She went home and they moved the toilet. That night she felt as if she collided with two spirits. Dono said they didn't enter her, but it was more as though they were trying to carry her off or something. All night long, she was very sick and nearly died, but in the morning her stomach had gone down to normal size, and she was well again (ibid 91)

Although well again, the cure was not permanent. The dukun explained that the patient must remain calm

and not get depressed or angry for three years afterwards, or the sickness would come back, that she must not get emotionally upset in any way. Unfortunately, she did get upset and often angry, and so in about a year and a half her sickness returned. So she came back to Dono again, but this time, after suitable meditation, he said he couldn't help her at all any more, so she went to the hospital at one of the sugar factories and was operated on, and they took five big containers of water out of her stomach. But it came back again, and at this point her distraught husband came to Dono to see if he couldn't do something for her. Dono meditated again, said no, he couldn't do anything for her, and said she was surely going to die in a week. Exactly a week later she died (ibid 91,92).

And thirdly, there is the dukan tiban who can be considered a shaman. The dukan tiban enters into a trance, and in this state communicates with the spirit world. She receives messages from the spirit world as to the cause of illness, and how the spirits can be mollified. She may in fact, allow the spirits to speak directly to the patient through her own body. Her power tends to disappear as suddenly as it comes. These dukuns are considered, by the Javanese, to be temporarily insane while the healing powers occur. Once healthy, the powers are gone.

Geertz (1960) suggests that there is an ambivalent attitude towards dukuns. The Javanese regard them both as supportive and threatening figures. This attitude stems from a psychological relationship within which there are three major problems. Firstly, there is concern over the outcome of the treatment. The possibility exists that the healer will not be able to make the patient well. Secondly, there is the problem of the involvement of the dukun in the patient's life. From the dukun's point of view, for the careful handling of the problem, he may require a greater degree of involvement than is appreciated by the patient. And finally, there is the inherent ambiguity of the dukun's power. The patient is never quite sure whether the dukun is in contact with God or the devil. There is always the possibility that he can perform sorcery upon a person as well as cure him.

In contrast to the chemical and mechanical basis of modern medicine, treatment within the Javanese medical system has both philosophical and mystical overtones. It is designed to achieve a psychological and moral balance. For example, the power of herbs and plants is augmented with chants, prayers, and saliva. As mentioned previously, saliva, as a product of the body, has *semangat* or vital force. There are also a number of herbal medicines which are used for such things as enhancing fertility, maintaining a slender figure, and for mild illnesses.

Massage is frequently used. For masuk angin (wind disorders) which usually result in colds, an old coin is rubbed on the chest and back until the skin is red and to the point where it is almost bleeding. This rubbing process creates heat. According to the concept of sympathy and antipathy, the heat produced, by rubbing the coin, repels the cold. The patient is then relieved of the cold symptoms.

Certain dukuns prescribe metals against illness, while others specialize in putting gold slivers under the skin. A sliver inserted near the forehead can relieve the pain of a constant headache. And finally, there is healing through the use of mystical powers. Some dukuns will set their own spirits free in order to search for someone else's lost semangat. Others will use psychic powers to remove objects from a body which have been placed there by sorcery. The removal is non-surgical.

This, then, is a general overview of the Javanese medical system. Patients, kinsmen and practitioners, within the framework of Javanese culture, have a perception of what constitutes sickness. From this perception, there logically follows the curative steps. What is important to the patient is the cause which is defined by the culture. And it is this cause which is treated by the traditional physician. Thus, in his role as a health care worker, the traditional practitioner excels in the healing of illness.

There are two concepts in Javanese medicine which warrant attention. They are those of 'semangat' and 'cocog'. Semangat is described as a sense of strength, decisiveness, confidence, and well-being. This is similar to Antonovsky's (1979) sense of coherence, that positive psychological world view which contains the crucial elements of confidence and hope. For both the Javanese and Antonovsky, it is this sense of strength, confidence, and hope in relation to life events which is important for the manifestation of a healthy outcome.

Cocog carries with it the idea of fitting as a key does a lock. A patient and physician who are compatible are cocog. If this relationship is not cocog, it is necessary for the patient to find another doctor. This indicates an understanding of the importance of harmony and equilibrium in the physician/patient relationship. From the previous discussion on the neuroendocrine and immune systems I concluded that only when there is a sense of equilibrium and physical well-being, can normal homeostases resume and the body begin to heal. The Javanese recognize the importance of the patient's emotions in the healing process. They appear to have a fundamental understanding of healing.

Since the dukun baji is a traditional medical practitioner, it can be assumed that this understanding of healing is carried into her work as midwife. However, within the past few years, she has been recognized

officially as a primary health care worker, and thus, incorporated into the official health care system of Indonesia. Therefore it is necessary to examine the government controlled system and the precise role of the dukun baji within it

Chapter 6

The Health Care System of Indonesia

One mother, age 25, a farmer's wife with a problematic birth record, was pregnant and full term. At her first birth, the patient experienced placenta retention. But with the method applied by the dukun baji the placenta was born. The following is what happened at her third birth: When the mother felt that she would give birth at seven a.m. the dukun baji was called. The baby was born at nineteen hours. The placenta did not follow. Therefore the dukun baji used an ancient method of putting the ends of the hair of the mother into the mouth of the daughter giving birth. But this method did not help. On the contrary bleeding set in, and at the end the mother died (Case study #9 Achmad 1984:108)

Medical practices reflect the world view of the society in which they are immersed. In Central Java, the health care system has its origins in Ayurvedic medicine, "a system which describes positive health as physical, mental, social, moral and spiritual welfare" (Bannerman et al 1983: 9) and in a traditional medicine based on a cosmology which adheres to a concept of power, boundaries and containment of power. Public health measures are geared towards the prevention of a loss of vital energy, with the resulting empty space. This vacuum is dangerous because it allows for the entrance of sickness causing spirits. Treatment consists in restoring the lost vital energy. This belief penetrates all aspects of Javanese culture.

Biomedicine, with its scientific approach (a belief system which emerged in the seventeenth century under the influence of Descartes, Bacon, Galileo and Newton), has been imported into Indonesia during the

colonial administration and later, by nationals who have studied abroad.

This medicine, which emphasizes intellect, logic and the experimental approach with statistical validation, has, in general, remained isolated in the higher centres of learning and administration. Although it appears to have become the medicine of the urban centres, it has, in fact, never replaced the deeply entrenched Javanese medicine, even in the minds of the elite.

With the end of the colonial administration, independence and the spiralling cost of modern health services, governments have begun a serious reassessment of the efficacy of many traditional practices. In Java, there is the knowledge that traditional birth attendants deliver 87 percent per annum of all births. Since the dukun baji is actually the primary health care worker in both the urban and rural areas, the Indonesian government has incorporated this traditional practitioner into the official health care system, one which is biomedical in orientation.

As previously indicated, practitioners of biomedicine are more orientated towards the curing of disease. Although, the Javanese physician appears to favour a holistic approach, he does, in fact, emphasize the healing aspect. In this area he/she excels. With the incorporation of the dukun baji into the official system, this traditional midwife is moving from a medicine which emphasizes healing to one

more geared to biology and the curing of disease. Therefore, it is necessary to evaluate her abilities to not only heal, but to provide quality obstetrical care. Prior to this assessment, however, I will examine her activities in the context of the overall health care scheme for Indonesia

It was estimated in 1971 that Indonesia had 5,690 physicians. Of these, approximately 80 per cent worked in some kind of governmental job, while at the same time engaging in part-time private practice. The vast majority live in the urban areas of the country in order to gain an adequate income from private practice. In Jakarta alone, 1600 physicians, or 35 per cent of all doctors practise their medicine.

The figures for nurses and midwives are somewhat better. 1974 figures indicate that the approximately 400 schools of nursing graduated an estimated 7,000 nurses. Likewise the 59 schools of midwifery graduated about 1,400 certified midwives and 40 schools produce 450-500 assistant midwives annually (Monograph 5, 1974).

In 1954 a decision was made to change, upgrade, and improve the training methods for nurses as well as all other paramedical personnel. The old-style schools for students who had only a primary school base were gradually replaced by schools which awarded diplomas in a number of specialities to a new type of practical nurse. These new schools also

allowed the holders of the older diplomas to upgrade their training. All of this resulted in a complex system of nursing and paramedical education.

In 1953 schools were opened to students with a primary-school education. They offered a two year training program which taught limited technical skills and increased the availability of low level nursing personnel. Graduates of this program, nursing aides, found work in preventive public health activities such as tuberculosis campaign workers.

The second category of nursing assistants is that of practical nurses. After two years training, junior high school graduates earned a diploma in one of six categories. These categories are as follows:

Diploma A - MCH (Maternal and Child Health care), tuberculosis, leprosy, eye disease campaigns.

Diploma B - Malaria control and plague campaigns and environmental sanitation.

Diploma C - General nursing.

Diploma D - Psychiatric nursing.

Diploma E - Assistant midwife.

Diploma F - Assistant laboratory technician (ibid 112).

The type of nurses and their education also varies considerably. Indonesia has a very specialized practice. A three year program trains students with a junior high school base in general or psychiatric nursing. To become a public health nurse, a nurse or midwife must take a further two years of education. Graduates are then placed in schools of midwives to teach theory and practice in public health, or they become heads of regular health centres. Nursing instructors have an additional two years of training before they can teach nursing.

In 1962 a College of Nursing was opened to senior high school graduates with diplomas in either language, mathematics or economics. After three years of study, students assume supervisory or administrative positions in the field of nursing. There are also special schools and programs for assistant anesthesists and paediatric head nurses.

Schools of midwifery date back to Dutch colonial times. Students holding a junior high school certificate are accepted into a three year training program. Assistant midwives and midwifery instructors have their special schools and programs. And finally, there are other paramedical schools which require only a primary school education. They are MCH (maternal and child health care) workers who do follow-up home visits, and smallpox volunteers (ibid 113).

The number and types of medical facilities are equally as varied. There are hospitals, health centres, maternal and child centres, and polyclinics. The hospitals are operated by government, private and religious agencies. In Indonesia there are four kinds of hospitals:

- 1) those which offer all services and are complete
- 2) those which offer three or four specialities
- 3) those which offer only one specialty (ob-gyn)
- 4) those which offer no speciality at all (ibid 42)

The majority of hospitals fall under the control of the Ministry of Health. These hospitals, as well as providing facilities, also allow for the training of medical and paramedical students, research and development in the field of medical and nutritional sciences, and the dissemination of health education information. It is estimated that in 1970 there were 1,164 hospitals (both government and private facilities) and a total of 82,327 beds. This number of beds is expected to meet the needs of a predicted population of 119.3 million in 1971 (Missen 1972:285).

Financing of these hospitals has been the responsibility of local governments, although it is suggested that this may be changed. Central level teaching hospitals are financed directly by the Ministry of Health.

The following is a breakdown of the distribution of hospitals and beds per population in selected provinces:

<u>Area</u>	<u>Pop. (1,000)</u>	<u>Hospitals</u>	<u>Beds</u>
North Sumatre	6,634	117	11,362
Jakarta	5,576	119	6,291
West Java	21,877	92	10,488
Central Java	26,527	120	12,397

(Monograph 5, 1974 43)

The health centres provide basic health care services to the population of a specified region. Included in their mandate are medical services, maternal and child health services, family planning, communicable disease control, hygiene and sanitation, community health education, public health nursing, and statistical data collection. Personnel of a centre should consist of a medical doctor (if one is available) midwifery supervisor, environmental supervisor, nurses, midwives, sanitarians, dental assistant, vaccination aide, and administrative personnel. Local governments in the past have been responsible for the financing of these facilities. However, in the future the central government is to make funds available to the provinces for the establishment of the health centres network (ibid 44,45)

Maternal and child centres (MCH), were set up to serve women and children exclusively. But because of the duplication of medical

programs, the government-run MCH centres are now in the process of being integrated into the health centres. The financing of the MCH centres will then be combined with the financing of health centres into which they will be integrated. Foreign agencies and UNICEF help with the donations of equipment.

The final type of medical facility is that of the polyclinic. They provide direct out patient care and are staffed by at least one medical doctor and various paramedical staff. "In 1971 there were 5,426 polyclinics in Indonesia, 554 of which were located in Jakarta" (ibid 46). There are a few privately sponsored polyclinics. Again, because of the duplication in services, the polyclinics will be integrated into the health centre network. Up until this integration takes place, they are financed by local governments.

One of the most overwhelming facts about Indonesia is its population, and population density. The estimated rate of natural growth is 2.1 to 2.4 per cent with a doubling of the population every 28-33 years (ibid 27). This is a reflection of slightly lower death rate, along with a relatively high birth rate. The estimated population for Indonesia was 132.1 million in 1976 and 149.4 million in 1981 (Missen 1972:285). About two-thirds of this population live on the islands of Java and Bali.

Indonesia is characterized by an uneven concentrated population in

particular areas. In 1961 the average population density was 51 persons per square mile. This increased to 59 persons per square mile in 1971. On the one hand Java has about 65 per cent of the total population on about 7 per cent of the total land area, while Sumatra and Kalimantan have only 16 and 4 per cent of population on 25 and 28 per cent of total land area. And it is the concentration of people in the cities which poses such a tremendous problem for the government. This overcrowding in the urban areas creates problems in housing, health care, environmental sanitation, welfare assistance, and other social problems.

Thus, for a projected population of 119.3 million in 1971, there were 5,690 physicians, 1,164 hospitals and 892,327 beds. There are no figures to indicate the number of trained nurses. Further statistics show that on the islands of Java and Bali, 87 per cent per annum of all births are delivered by traditional midwives (Rogers and Solomon 74). This includes 70 per cent of all births in the urban areas and 90 per cent in the rural regions. Per 10,000 population there were 0.4 doctors, 0.5 government midwives, 1.2 nurses, and 10.0 traditional birth attendants. In reality, the primary health care workers, those who meet the needs of the vast majority of the population in Indonesia, are the traditional healers and birth attendants (ibid:75).

Recognition of the importance of the traditional birth attendants in

the delivery of primary health care began as early as 1952. At that time UNICEF sponsored a project for training dukun bajis in improved methods of child delivery. 36,000 dukuns were trained. This is considered to have been about half of the 70,000 dukuns who at that time practised in Java and Bali. The Ministry of Health has estimated that from 10 to 20 per cent of the original 36,000 MCH trained dukuns have either died or retired from their duties (Rogers, Solomon: 34).

In the summer of 1972, the Indonesian government sponsored a major national workshop on dukun activities as they relate to MCH care and family planning. Programs to upgrade the dukuns' skills were initiated. There was also an examination of the relationship of the traditional midwives with other health personnel. However, the emphasis was on the incorporation of the dukun into family planning activities. It is the Indonesian government's intent to continue to provide upgrading programs for dukun bajis.

If the emphasis of the government is on improved technical skills, the community looks to this practitioner for a much broader range of activities. The rituals she performs during pregnancy, childbirth and post delivery are numerous and complex. This primary health care worker assumes a role which has no counterpart in modern western society.

The following is a profile of the characteristics of the dukun baji:

- 1) Almost all dukuns are female except in Bali
- 2) The average age is fifty-five; almost all are past middle age
- 3) They are currently married, widowed or divorced
- 4) On the average they deliver about three babies per month
- 5) The average fee charged per birth is about \$1 (USA)
- 6) Besides child-delivery they earn money through performing massage, and many do farm work.
- 7) Almost all are illiterate.
- 8) They have learned their skills either from a grandmother or their mother.
- 9) Most assume their role on the death, or retirement, of their mother or grandmother. Some feel a supernatural calling, and a few are 'appointed' by the village chief.
- 10) They have a low income but are highly respected in their community.
- 11) They perform massage, prescribe herbal medicine and traditional family planning, do magic, and some abortions, and give advice on child rearing and marriage (Rogers, Solomon: 18,19)

There is a family-like relationship between the dukun baji and her patients. Because of this relationship the influence of the dukun is felt

in the daily life of a Javanese family. She is consulted about the curing of various diseases, traditional medicines, the raising of children, the correct rules of conduct and almost anything experienced in village life. In urban areas the situation is only slightly different. This difference lies in the matter of income. In the villages the dukun baji earns her money as a small time vendor or from the proceeds of the rice fields. In the towns she receives her income primarily from delivering babies. Yet, in both places, the community expresses its affection and appreciation through various gifts, particularly during Lebaran and in invitations to the customary rituals and festivities related to the infant she has delivered (Poerewodihardjo et al. 1972: 20,21)

Within the Javanese family, children are much wanted and enjoyed. This pleasure is expressed in practical terms: "When you are old, your children will care for you. Even if you are rich, the kind of care your children give you cannot be bought" (Geertz 1961:83). A woman with many children is to be envied, a woman with none, pitied.

At the first sign of pregnancy, according to old Javanese women, there is a sudden intense desire for extremely peppery food. This craving for odd foods continues during pregnancy and it is the husband's duty to satisfy his wife's wishes. He is also expected to refrain from intercourse with his wife (though many do not) in order to prevent a

deformed baby.

There are a number of taboos and the husband is equally responsible to see that his wife observes these. She should not eat certain things - i.e. sugar cane as this causes the baby at the time of birth to start to come out, stop, start again, stop, etc., kepel (a fruit with seeds with lines running horizontally) will make the baby be born sideways. She should not eat in front of an open door as the baby will have a big mouth and make a lot of noise. And most importantly, the husband must not kill or wound any animals. If he does, exactly the same wound will be inflicted upon his child (ibid 86).

There are other restrictions. The pregnant mother is not allowed to eat from a big plate to ensure that the infant will have a small face. She must not tie a knot to prevent the umbilical cord from becoming entangled. Towards the time of delivery she is urged to drink coconut oil, mixed with saffron, or to eat an egg to facilitate childbirth. The husband must also maintain good behaviour and live frugally (by reducing food intake and sleep) in order to keep deformity and mishap away from the infant (Poerwodihardjo et al. 1972:19).

During pregnancy there are a number of rituals performed. The dukun's role in the performance of these ceremonies is still very great, although it varies from region to region. At three months prayers are

said and offerings presented. At four months prayers and offerings are made, and rice is cooked in small containers of braided palm leaves. In the fifth and seventh month rituals are once more performed. Usually these ceremonies are held only during the first pregnancy but the seventh month event can be held for multiple pregnancies. Although the slametan is considered as the best safeguard against dangers, a pregnant woman is cautioned to be careful in all matters. Even anger or nastiness can have a negative affect upon the infant.

It is time for the expectant mother to give birth. The dukun baji is called in. She spreads a mat on the floor, or on a wide bed-sized bench. The wife is seated on it, the husband behind the wife. He sits on a little bench about six inches high and supports his wife between his legs, as she leans back, straining to 'push' the baby out. Meanwhile, as the dukun baji is repeating the proper prayers for the protection of the woman and baby, she massages the woman's legs, thighs, and abdomen. The husband takes a mouthful of special herbs, chews them into a paste, and then applies them to his wife's fontanel. This gives special protection, ensuring that her powers are retained within, thus not allowing wandering spirits to enter her body. If labor is difficult the woman can ask pardon of her husband. The purpose is to restore balance and equilibrium to the relationship, a necessary state for a healthy condition.

At the time of birth the dukun uses a *we/at* (an instrument in the shape of a knife and made of bamboo), or scissors to cut the umbilical cord. Some dukuns know enough to cleanse the instruments by immersing them in boiling water, others do not. Once the cord is cut, any one of the following materials is applied to the stump of the umbilical cord: saffron mixed with lime juice or tamarind, scrapings from a coconut shell, sago (metroxylon), flour, etc. No particular reason is given for their use, but I would suspect that the paste formed would tend to provide a thick coating over the cord stump, and prevent infection. There is also the possibility that some of these herbs have medicinal properties. In some areas modern ideas have infiltrated, and alcohol or dermatol is used (Poerewodihardjo et al. 1972:19). The baby is then bathed, dressed and swaddled by the dukun.

After the birth, the mother's body is washed and a binder applied around her abdomen. She is given a herbal medicine in order to prevent 'white blood' from reaching the eyes, and to accelerate the exit of 'unclean blood' from the body. There is also the customary *wuwung* bath. Water is showered over the head while the mother keeps her eyes open. According to tradition, this facilitates the exit of unclean blood along with the expulsion of mother's milk. To ensure clear eyesight, ointment is applied to the mother's temples.

Both during childbirth, and after, there are a number of rituals which must be performed. Firstly is the *menggebrak* ceremony. The infant is startled by striking a spot next to where it is lying (comparable to the startling back slap given to the infant by the doctor of biomedicine. Both are to ensure the baby has taken its first breath). According to Hildred Geertz (1961) there is a final ceremonial task which the husband must perform. He must take the mat on which his wife has been lying to a river to wash off the blood. There, he burns incense and dry rice stalks, and puts a flower and lime mixture nearby. He then says a special prayer (taught to him by the midwife) to the spirit of the rivers. However, Dr. Poerwodihardjo et al., in their very detailed description of the dukun baji's role, does not mention such a ceremony. Perhaps it is a localized ritual that is performed only in one area of Java.

The most important ceremony is that of burying the placenta. The placenta is the supernatural 'younger brother' of the newborn infant. The amniotic fluid, which is released before the baby, is the 'older brother'. Throughout this infant's life, these 'brothers' will protect the individual. And they are frequently called upon in spells and prayers. The placenta is placed in a container of clay together with *Kembung setamen* (various flowers), rice grains, coins and a needle and thread for females, or pencil and paper for males. Subsequently these items are buried in a

traditionally prescribed manner, outside the door. Prayers are offered in order to ensure that the powers of the spirits of the afterbirths are contained. Again, it is the idea of the containment of powerful spirits, in order that no vacuum or empty space is created into which wandering bad spirits can enter. It is a means of preventing future illness for the child. All of this is followed with the *selaamatan brokohan*, a meal in which dishes containing certain kinds of vegetables are offered to the spirits.

At a slametan all kinds of invisible beings come and sit with us and they also eat the food. That is why the food and not the prayer is the heart of the slametan. The spirit eats the aroma of the food. It's like this banana. I smell it but it doesn't disappear. That is why the food is left for us after the spirit has already eaten it (Geertz 1960:15).

When the infant has no father the dukun baji recites the prayers of a thousand exorcisms. These are taken from religious texts.

The dukun continues to care for the mother and infant for forty days after childbirth. During this period there are several requirements and taboos. Certain kinds of foods must not be eaten, and the husband and wife are not allowed to resume sexual intimacy. For approximately seven days postpartum *tirakatan* is performed. The mother must not go to bed or must stay awake until far into the night with the object of averting dangers which may threaten the weak and susceptible infant. This ritual in itself could pose a threat to a weakened mother who has

had a difficult delivery. Before the separation of the umbilical cord

- (*puputan*) an infant is not allowed to sleep alone. A stone roller (for pulverizing ingredients of traditional medicine) is dressed up like an infant and placed in the infant's bed. Under the the infant's bed offerings are presented and a small lamp is kept burning. All of this is to avert dangerous spirits which could harm the child.

Thirty-five days after childbirth the *selapanan* ceremony is held. The mother is bathed in scented water and *walik-dadah* is performed. This is a method of preventing pregnancy. Through a special technique of deep massage, the uterus is retroflexed, thus making conception less likely. "The anthropologist Vercloorn (1947,p47) estimates that *angkatperut* (retroflexion of the uterus) is effective in about half the cases" (Rogers and Solomon: 33). The dukuns who are able to retroflex the uterus, are also able to reverse the process to restore a woman to a fertile state. The negative aspect of this procedure is hemorrhaging. As a result, the Ministry of Public Health has discouraged dukuns from using this procedure as a means of birth control.

It is also at this time that the infant has the ceremony of the first haircut. The largest ceremony, however is held when the infant is seven months old. At this time the female child is circumcised. For the male child, circumcision takes place when he is at least six years old.

Within Indonesian society there are a number of medically trained midwives (*bidans*) Those who seek the assistance of the *bidan* are usually educated, from urban centres, and employed by the government. The *bidan* is twice as expensive as the *dukun*, and her services cease within a week after birth. This type of midwife is usually a respected member of the urban educated group, close to the top of the prestige ladder, "and, as such, is to be kept at an uneasy, honorable distance by those who do not already identify with her group" (Geertz 1961:91). She is feared by the villagers, in the sense that they may behave awkwardly or unintentionally disrespectful in her presence. They also fear the impersonal world, for which she stands. When the *dukun baji* attends a delivery, all members of the family, and particularly the husband, take an active role in the actual birth. In contrast to this, the medically trained midwife sends everyone away and in effect robs the family of their sense of responsibility and participation (ibid 92).

It is important to emphasize the depth of a belief which penetrates every aspect of Javanese society and unites the *dukun* and family in a relationship which has no counterpart in modern western society. Dr. Januar Achmad (1984) writes:

The health concept of a mother giving birth cannot be separated from the beliefs of the rural population of the district. The people still believe that there is a mysterious side to sickness. Sickness is a disturbance between man and mysterious forces. According to

the Javanese everybody who lives in our reality, when born is already affected by guilt. Guilt can be erased if man lives a good life and asks forgiveness from his Lord. Before man is born the Lord has already described upon him the fate of a person. Therefore it is understandable why a family does not seek help first in a clinic, but from the dukun ---Only after the dukun cannot help does the family consider to bring the sick mother to the clinic (ibid 35,36)

Statistics reveal dramatically the shortage of doctors, nurses and midwives in Indonesia. Whereas, there is one dukun baji per 1,000 population, there is only one government trained midwife per 20,000 population. The doctor situation is even worse. In reality, then, the dukun baji is the health care worker who meets the needs of the vast majority of the population. The second principle in the delivery of effective health care is that of providing quality assurance. This would include the care associated with the biological or psychological processes as well as for the psychosocial experience which has meaning for the patient.

Through the use of the phenomenological model, I have been able to conclude that in the area of the psychosocial experience, the dukun baji provides competent assurance. She is involved with culturally meaningful activities through pregnancy, delivery and for several months post partum. The rituals she performs binds the participants in a special spiritual relationship.

It is, however, necessary to assess her ability to deliver quality

health care as it relates to the biological processes. This type of evaluation requires a different approach - one which emphasizes logic and statistical validation. Whereas the phenomenological model allows the researcher to describe the cause which is meaningful to the patient, a data analysis reveals the biological or objective cause.

To understand the quality of the biological care as provided by the dukun baji, I will analyse maternal mortality rates from a district in Central Java. This information is taken from the research of Dr. Januar Achmad (1984) who since 1980 has been recording maternal mortalities in District Kaliangkrik, Central Java. Through a statistical analysis of thirty-six case studies, I will examine the particulars of who died and why they died. By relating the results of this analysis to medical procedures practised during pregnancy and child birth, I will be able to draw general conclusions as to the quality of care associated with the biological processes in this particular district.

Chapter 7

Maternal Mortality, District Kaliangkrik, Central Java.

It was estimated that in 1971 Indonesia had 5,690 physicians, 1,116 hospitals and 82,327 beds for a projected population of 119.3 million (Monograph 5, 1974: 42). Further statistics show that on the islands of Java and Bali, 87 percent per annum of all births are delivered by traditional midwives (Rogers and Solomon: 74). This includes 70 percent of all births in urban areas and 90 percent in the rural regions. Per 10,000 population, there are 0.5 government midwives, 1.2 nurses, and 10.0 traditional birth attendants. The infant mortality rate (0-1 years of age) in 1980 was 100 per 1,000 births and maternal mortality in 1981 was 3.9 per 1,000 (Achmad: 1984: 3) as compared to that of the U.S.A. which was approximately 0.15 (Sandberg: 1978: 1). These figures represent only those deaths that occurred in hospital.

The true statistics on mother and baby death rates in Indonesia are not yet available. The present figures are guess work (Achmad: 1984: 7). What is apparent is that although the statistics for maternal and infant mortality rates are based on hospital data, the vast majority of babies are delivered in the home by traditional birth attendants. It is these two facts which influenced Dr. Januar Achmad to undertake a research project. He realized that in order to improve health care, it is necessary

to have accurate data on who died ~~and~~ why they died. To do this, he had to develop an improved information system, one, which would provide continuous and exact statistics.

In 1980, Dr. Achmad, under the sponsorship of the Ford Foundation, set up a research project in the District Kaliangkrik. Included within this region are 19 villages and 40,000 inhabitants. The district is 15 km west of the nearest hospital, Magelang. There is no public transportation available, and during the rainy season, the local inhabitants can walk only as the roads are not usable. The people grow corn, potatoes, vegetables and tobacco in the hilly region, and rice in the lower regions. The villagers have little education. In 1982, there was only one junior high school for the area.

Using the information system which existed, Dr. Achmad designed a research program which would give him the type of data he wanted. The project began in 1980 and will be completed in 1987. His goals are as follows:

- 1) To coordinate an effective information system
- 2) To show trends of mother and baby deaths
- 3) To explain existing health care programs from 1982 to 1985
- 4) To evaluate health programs in relation to mother and baby deaths considering other factors such as leadership, socio economic factors,

geography and demography. His research team consisted of traditional birth attendants, malaria inspectors, workers in maternity clinics, village clerks and public health nurses. The project will not be completed until 1987 but in 1984 Dr Achmad published an intermediate report. It is data from this report which will be used in the thesis.

To understand this particular analysis, there are two factors which should be noted. Although the number of hospitals is limited, there are other facilities which provide basic health care services to the population of a specified region. These are called health centres. Along with these central clinics are M.C.H.'s (maternal and child centres) whose sole function is to serve women and children. In this statistical analysis, it is M.C.H. centres which I refer to under the term "visits to a health clinic". And secondly, in this case study, it is the dukun baji who makes all the home deliveries.

In order to make an assessment of the quality of health care provided by the dukun baji, I will explore some of the data collected by Dr Achmad. As a part of his research, Dr Achmad wrote 36 case studies based on women who died during child birth. From these studies I have listed the ages, parity, causes of death and number of visits to a clinic. Through exploration of this data, I will draw a picture of who died and how they died. Based upon this picture, I will offer conclusions as to

Table 3.a

Maternal Mortalities 1980-1984 District Kallangkrik, Central

Case No.	Age	Parity	Causes of Death	Clinical Visits
1	unknown	3	bleeding	6
2	19	0	unknown*	4
3	28	2	bleeding r.p.**	0
4	28	3	ruptured uterus	12
5	32	3	bleeding r.p.	0
6	20	5	bleeding r.p.	0
7	24	1	other	0
8	19	2	puerperal sep ***	2
9	25	2	bleeding r.p.	0
10	30	4	bleeding r.p.	0
11	18	0	bleeding	0
12	18	0	toxemia	1
13	35	5	bleeding	0
14	24	0	unknown	0
15	30	4	puerperal sep	0
16	16	0	unknown	2
17	30	7	bleeding	0
18	30	0	bleeding	1
19	21	0	unknown	0
20	30	2	unknown	0
21	23	2	bleeding r.p.	1
22	25	2	puerperal sep.	1
23	27	5	other	1
24	30	5	bleeding	0
25	19	0	toxemia	3
26	30	2	unknown	1
27	50	5	bleeding	1
28	20	1	puerperal sep	2
29	23	0	other	1
30	25	6	bleeding r.p.	1
31	23	0	bleeding	1
32	30	4	puerperal sep.	1
33	20	0	other	5
34	20	1	puerperal sep	1
35	15	0	toxemia	3
36	25	2	other	0

*unknown and other =maternal deaths due to causes not related to pregnancy

**bleeding r.p.=bleeding with retained placenta

***puerperal sep.=puerperal sepsis.

Source: Achmad 1984: 104-121

quality of the health care related to the biological processes and as provide by the dukun baji.

In the analysis 'causes of death' has been divided into five categories: bleeding, bleeding with retained placenta, puerperal sepsis, toxemia and others. Before relating these causes to the data, it is necessary to briefly explain each one.

Blood loss in obstetrics usually occurs in the postpartum period. In 9 out of 10 cases, it results from myometrial atony (Sandberg 1978: 493). An atonic uterus is an uncontracted uterus, which allows blood to escape from the open vessels which previously supplied the placenta. As long as the placenta is attached to the uterus wall, the vessels have not been torn and therefore the hemorrhage cannot take place. Once the placenta is detached and the uterus does not firmly contract, bleeding occurs. The causes of uterine atony are not always obvious, but in this situation, prolonged labour, excessively short labour, or multiparity are commonly associated factors. In modern medical facilities, it is common to administer 0.5 to 1ml. of Pitocin or Syntocin intramuscularly at the time of separation of the placenta and membranes, to prevent such bleeding from happening.

Retained placenta means the failure of the placenta to detach itself from the uterus within 30 minutes after the birth of the infant. Its causes

are not known. Manual removal of the placenta is the obvious treatment to this condition. What frequently happens in this manual expulsion of the placenta is that the isolated placental fragments are retained in the uterus. This interferes with the contraction of the uterus and bleeding occurs. There are other causes of bleeding such as the incomplete separation of the placenta, lacerations, coagulation defects, but in general hemorrhage is due to uterine atony or retained placental fragments. And uterine atony is related to an inherent weakness of the muscle fibres. This is often associated with older women who have had several children. Death due to hemorrhage is directly linked to the type of care given at the time of birth.

Toxemia is a synonym for preeclampsia-eclampsia. Preeclampsia is a syndrome peculiar to pregnant and puerperal (the stage of recovery from the time of delivery to approximately 6 weeks thereafter) women. It is characterized by hypertension, proteinuria and generalized edema. The diagnosis is changed when convulsions or coma occur. Eclampsia is a more severe form of preeclampsia. Both forms are associated with maternal and fetal mortality.

The frequency of preeclampsia-eclampsia and chronic-hypertension varies from place to place and from population to population. Nulliparas (those who have had no deliveries) particularly women at the extremes of

the age scale are most affected (Ibid 383). Therefore the very young with no previous deliveries and the very old with no deliveries are the most vulnerable. Women in low socio-economic groups with poor nutrition, less than optimal health care, a high rate of pregnancy disease and late or minimal prenatal care suffer from an increased frequency of the disease. All these conditions are prevalent in this study. Whereas bleeding is associated with the type of care given at the time of delivery, toxemia is associated with the prenatal care.

Puerperal sepsis is a general term referring to any infection arising in the birth canal following delivery. It most commonly happens in the endometrium but may develop elsewhere. Usually the infection remains localized but can extend widely. The severity of the illness depends on the nature of the invading organism (i.e. streptococcus staphylococcus etc.), the location of infection, the resistance of the patient and the specific treatment. It is a dangerous complication of pregnancy and often results in death. Puerperal morbidity is classically defined as a temperature of 100.4F. (38C.) or higher on any 2 postpartum days excluding the first 24 hours. This illness is associated with technique during delivery. Neither age nor parity are factors.

Under 'other causes' are listed all those deaths whose causes are unknown or not directly related to specific diseases associated with

pregnancy (i.e. bleeding, toxemia, and puerperal sepsis). Therefore, there should be no direct relationship of these causes with pre or post natal care, techniques used during delivery, or age, or parity of mother.

The analysis of the data has been divided into two main sections (a) an analysis of data according to age, parity and visits, and (b) the sub-batching of data and analysis according to cause of death. According to the initial exploration of the data, there are four unusual cases which should be looked at in more detail. The first (in the category of age) is the case of a fifty year old woman. She was a farmer's wife with a medical history of having no problems with her five previous pregnancies and births. In this pregnancy the baby and placenta were passed normally but in the process she lost a considerable amount of blood. She became very weak, lost consciousness and died. Her age is highly unusual. She has a combination of a high parity (five previous births) plus an exceptionally high age, which makes her a very risky candidate for having birth at home. A combination of age and many births often results in an atonic uterus (uncontracted uterus) and postpartum hemorrhage. Since the woman had one visit in the clinic she should have been referred to a hospital for her delivery. In further analysis this particular case has been dropped because of the highly unusual age factor.

In the number of visits to a health clinic, there are three unusual cases.

The first is a case of a twenty-eight year old woman who had three previous pregnancies, and a medical history of difficult pregnancies. Her second child was born by caesarian section. She had an IUD inserted but required curettage after a few months because of the problems associated with it. When she became pregnant for the fourth time, she was told by the government trained midwife to give birth in a hospital. She refused, but retained the assistance of a medically trained dukun baji. She gave birth at home but could not pass the placenta. Bleeding occurred. Under the supervision of a nurse she was taken to a clinic. She went into shock and died. A post mortem showed she had died from a ruptured uterus. The significant point of this case is that the woman made twelve visits to the health clinic. She had difficult pregnancies, and therefore she sought help at the government health centre.

The second case history is similar. Again the woman had had three difficult pregnancies and therefore visited the clinic more often than usual. She delivered spontaneously but the placenta was slow in being passed. As a result she hemorrhaged and died. Both these cases appear to indicate that although the women, for a number of reasons, prefer to deliver in their home, they do seek the assistance of trained medical personnel when they are aware of problems in their pregnancy.

The third case is a twenty year old with no previous pregnancy. She had

a normal delivery but developed a fever after five days. She was taken to hospital, diagnosed as typhoid and died six days later. Thus, her death is not related to her pregnancy but to the environmental conditions of village life.

From these four unusual cases in the original data, a picture emerges. Firstly, the older the woman the more risky is the pregnancy. Secondly, village women do seek help from government trained medical personnel, particularly when they have difficulties. Still, they prefer to deliver in the home and risk their lives rather than enter into a hospital. And finally, there are factors other than those related to pregnancy which cause the death of women during childbirth.

Exploration, as well as confirmation of the data (age and parity) indicates that as age increases so does parity. All of this is what one would expect - as age increases so does the number of children. However, it is the unusual cases which enlarge the picture of age, parity, and death among the women of Kaliangkrik. For both the exploratory and confirmatory work, the unusual cases have one thing in common. Each of these women died from post partum hemorrhage. Whether there is high age and low parity, low age and high parity, and high age and high parity the unusual cases are death due to bleeding. When the data is sub-batched according to causes, there are fifteen cases of death due to bleeding.

as compared to twenty-one cases where women died of other causes. Yet when age and parity are explored through X by Y analysis and confirmed through linear regression, the unusual cases are all death due to bleeding. This suggests that there is a relationship between age, parity, and maternal death due to hemorrhage. This will be elaborated on in further detail in the second section, when the data of 'deaths according to cause' is examined.

The second X by Y analysis and linear regression shows that age does not contribute significantly to the number of visits to the clinics.

"However as usual we do not let the absence of a significant relationship keep us from thinking about data. These data are clearly worth exploring" (Erickson and Nosanchuk 1977: 258). It appears as age increases, the number of visits decrease. This may not be significant from statistical point of view, but for those interested in the delivery of primary health care, it is a most relevant observation.

Why are young women more apt to visit health centres for prenatal care? Firstly, they may have more education (at least primary school) and are more open to outside influence. This would suggest that it is necessary to target younger women in order to improve health care.

Secondly, as indicated in the introduction, there is no public transportation. Younger women may be stronger and more able to make

the long walks to the clinics. There is also the fact, that if age and parity are linked, older women have more children. Therefore, older women may not only have to work in the rice paddies or vegetable gardens, but also look after the children. This would leave little time or energy for the long trek to the health centres. And finally, if older women have more children, they have already experienced giving birth. As a result they may feel that prenatal care is not necessary. If younger women tend to seek prenatal care and older women do not, it is necessary to emphasize to these women the importance of prenatal care for each and every pregnancy. It would also suggest the need for improved roads and transportation to make the clinics accessible to all women.

When the data are examined before sub-batching, the mean for parity is 2.17 - that is taking all the numbers of children of all mothers who died, the average number of children per mother is 2.17. When the data are sub-batched according to causes of death, the average number of children for women who died from,

- 1) bleeding is 3.1
- 2) bleeding with retained placenta is 3.4
- 3) puerperal sepsis is 2.3
- 4) toxemia is 0

5) others is 1.3

According to the data, 'the bleeders' appear to have more children, 'the toxemias' none, while 'the puerperal sepsis' and 'others' are more or less the same compared to the overall means. This suggests that there are links between parity and causes of death. Further analysis indicates that there is a significant relationship between parity and the causes of death.

That bleeding affects the mothers who are multiparas (over two children) (and the means of this data is 3.4 and 3.1) is understandable in light of the previous description of causes of death. The most chronic problem is atonic uterus. Through having a number of children the uterus loses its tonicity and fails to contract as necessary after the birth of the infant. Bleeding then occurs. Because of the poor social conditions, (overwork, lack of good nutrition and poor prenatal care), factors which lead to retained placenta and other complications are more likely to be prevalent.

The description of toxemia shows that it is women, either very young or very old, who have had no previous deliveries, particularly in low socio-economic groups, who are most vulnerable to this disease. In our case the three women were very young. All had no previous deliveries. Our data fits well into the picture of women who are most susceptible to

toxemia

Because both puerperal sepsis and 'others' are not associated with parity in any way, their means should be very similar to the means of the data as a whole. The means of parity of all the cases is 2.17, for that of puerperal sepsis 2.3 (close) and others 1.3 (slightly lower). This would indicate that women who are dying of other causes, not related to parity have slightly fewer children than the average for the group. Since puerperal sepsis is related to the medical technique used during delivery its average should be very similar to the average as a whole. The average is similar.

According to the analysis of this selected sample, of all the women who died in childbirth, the mean age was 25.20. It should be noted that a random sample would contain data on all deliveries in this period of time. Had Dr. Achmad collected information on all deliveries, a more accurate analysis could have been done. When we examine the mean ages of women who die according to related causes, they are as follows:

1. bleeding - 30.9
2. bleeding with retained placenta - 26.1
3. puerperal sepsis - 24
4. toxemia - 17.3
5. others - 23.9

The technical analysis shows that in general older women die of bleeding, younger women of toxemia, and those who die of puerperal sepsis and other causes are in between - close to the average age level. The analysis, in fact, indicates that the relationship between young women and the cause of death is significant. There is a fairly strong relationship. This, plus the original exploratory analysis, indicates that the relationship of age to cause of death requires further explanation.

If we examine bleeding from a medical perspective, a combination of age and multiparity would suggest the need for careful supervision during childbirth. The same factors which came into play in the description of bleeding and parity are involved in age and bleeding. Age alone does not lead to post partum hemorrhage. However, given all the factors associated with a lower socioeconomic condition, plus age and multiparity, bleeding can become a severe obstetrical problem.

The mean age of 17.3 for toxemia fits the general description of those women most susceptible to the disease. These women are all at the lower extreme of the age scale. Since puerperal sepsis is not an age related sickness, but due to medical technique at the time of delivery, the mean age should be similar to the overall age of all women who died in childbirth. It is. And those who died from other causes also have a mean age similar to the overall mean. From this it is possible to suggest

that bleeding and toxemia are age related while the other two categories are not

The mean of visits in the overall data before sub-batching is 1.42 (a very low number of visits). For the sub-batched data according to causes of death the means are as follows:

- 1) bleeding - 1.8
- 2) bleeding with retained placenta - 2.9
- 3) puerperal sepsis - 1.2
- 4) toxemia - 2.3
- 5) others - 2.2

This reinforces the previous description of visits to the clinic. The younger women (who died of toxemia) made more than the average number of visits to the clinics, while the older women (who died of bleeding) made fewer visits. Of importance, also, is the actual number of visits. A mean of 1.42 for all of the data is an incredibly low number of prenatal checkups. The fact that 42% of the women did not visit the clinic at all, and 75% visited only once, is significant in any planning for prenatal care.

Analysis of these thirty-five case studies has revealed a number of important factors concerning the quality of health care received by the women of District Kaliangkrik, Central Java. Some of these factors, in

turn, can be linked to the practices of the dukun bayi. These factors are

1) Women of this district are not having a sufficient number of prenatal checkups. The average is 1.42, a particularly low number of examinations. Younger women appear to have more prenatal checkups, but as age increases the number of visits to the clinic decreases. Women, who are aware of problems related to their pregnancy, make more visits to the health centres. Socio-economic problems and lack of transportation may be important factors.

2) Post partum hemorrhage appears to be related to older women who have had more children. Since it is the dukun bayi who delivers the baby more stress must be placed on improving this aspect of care.

3) Young women who have had no children are more likely to die from toxemia. These women also appear to make more than the usual number of visits to the health centres. This would suggest the need for upgrading the skills of the government trained midwives and public health nurses.

4) Puerperal sepsis is directly related to the medical technique at the time of delivery. The dukun bayis require further training in aseptic technique.

5) There are many other factors unrelated to obstetrics which cause maternal deaths. Therefore there must be a continuous effort to improve

the socio-economic conditions of village life

This analysis of the Achmad data indicates that the dukun baji has difficulty providing quality assurance in that area of health care associated with the biological processes. The poor socio-economic conditions only serve to exacerbate the situation. Post partum bleeding is a major cause of death in older women who have had several children. Ideally, these women should deliver in hospital. Still, the analysis shows that women refuse to deliver in hospital even, when their life is threatened. The skills of the dukun baji need to be upgraded to meet this ever present problem. Nevertheless, given the socio-economic conditions and the women's refusal to deliver in hospital, maternal mortality rates will remain high, regardless of the dukun's skills.

In rural and urban marginal areas, maternity care is particularly inadequate and there is a serious lack of reliable data for planning the delivery of obstetrical services. With funding from IDRC (International Development and Research Centre, Ottawa) researchers at Yayasan Atma Jaya, an Indonesian non governmental organization active in the health field, are developing and evaluating a system for the early detection of high-risk pregnancies. They are designing a simple health risk card and accompanying health education package for pregnant women in a slum area of northwest Jakarta. This material is distributed by the dukun

bajis and local health workers

Puerperal sepsis is a medical problem related to the technique used in the delivery. Infections occur when organisms are introduced into the birth canal through the use of unsterile equipment. All dukun bajis, who have had some sort of medical training, receive a midwifery bag with a simple selection of appropriate equipment. They should understand and identify the principles of clean and "extra clean" techniques as used in home delivery. Throughout the delivery the dukun must follow a rigid but simple "extra clean" technique to prevent infection. Education programs for dukuns should be geared to their levels. Such clean techniques for delivery are not difficult and if reinterpreted in order to make cultural sense, can be satisfactorily integrated into home delivery. A few simple but effective measures to upgrade the dukun baji's skills will enhance her ability to provide her clients with quality assurance in the whole area of obstetrical care.

To be effective, a health care system should not only meet the needs of the population but must provide an accepted quality of health care. This includes both the need to treat any malfunctioning (diseased) biological or psychological processes and to provide an effective response to the psychosocial experience. Through the use of the phenomenological model, I proposed that the dukun baji does provide an

effective response to the psychosocial experience

To assess the traditional birth attendant's ability to treat the malfunctioning biological processes, I have used a second approach, that of data analysis. Through the examination of data on age, parity, causes of death and visits to clinics, taken from thirty-six case studies based on maternal mortality in District Kaliangkrik, Central Java, I have determined the problem areas as they relate to the dukun bayi's skills. This two-pronged approach provides a fuller picture of the factors involved in providing quality health care. Although I have not elaborated on the socio-economic conditions and environmental factors, these, too, are important considerations in the delivery of primary health care.

Chapter 8 Conclusion

The discipline of anthropology provides a powerful tool with which to better discern indicators about human behaviour in response to states of health. This, along with an understanding of how a people perceives itself, is a prime requisite to the establishment of primary health care. The Javanese live in a world based on power, boundaries, and containment of power. The loss of one's vital energy, combined with the entrance of sickness causing spirits which occupy the space, dominates ideas on health. Life for the Javanese is excessively ritualistic. And all rituals are orientated towards the prevention of an empty space in which dangerous powers can find habitation. Treatment within the traditional health care system seeks to restore this vital energy and thus, reestablish normal homeostases and the physical well-being of the patient.

For a health care system to be effective, it must address two fundamental principles: that of meeting the needs of the vast majority of the population and of providing generally accepted standards of health care. Included within this generally accepted standard of health care are two aspects: the need to provide an effective response to the psychosocial experience, (the healing of illness), and to supply quality treatment of the malfunctioning biological or psychological processes.

(the curing of disease). An analysis of the role of the traditional birth attendant of Central Java indicates that she does indeed meet the needs of the vast majority of the population. On the island of Java, the dukun baji delivers 87 per cent per annum of all births. This includes 70 percent of all births in the urban areas and 90 per cent in the rural areas (Rogers and Solomon: 74). Per 10,000 population, there are 0.4 doctors, 0.5 midwives and 10 traditional birth attendants (Monograph 5, 1974). In reality, the dukun baji is the primary health care worker in Central Java.

The condition termed *sickness* has two components; disease and illness. The dukun baji, if she is going to provide a generally accepted standard of health care, must supply quality assurance in both these areas. Through the use of the phenomenological model, I have ascertained that she does provide an effective response to the psychosocial experience. Within the framework of the Javanese culture, both the practitioner and the patient have the same perception of what constitutes illness. Based upon this perception, the dukun baji supplies the necessary curative steps which are meaningful to the patient. Two terms, *semangat* and *cocog* suggest that the traditional practitioners have a fundamental understanding of the healing process.

The record of the dukun baji in the field of curing disease is not as good. By analysing data, statistics on maternal mortalities for District

Kaliangkrik, Central Java, I found that the dukun baji had difficulties assuring adequate care for high risk pregnancies. She also lacked competent skills related to clean or aseptic technique. Since the dukun baji is a part of the official government sponsored health system, it is possible to have these skills upgraded. This in itself requires sensitivity, insight and detailed planning as the relationship between health professionals and traditional birth attendants has long been an uneasy one.

It can be concluded that a health care system for a country such as Indonesia is eclectic. There is the meshing of the two elements, traditional and modern biomedicine. This observation is supported by ethnographic literature on the adaptation of traditional cultures to modern western technology.

Secondly, as each medical system contacts the other, both systems, over time, progress and alter in order to meet the specific needs of society. The result is a system of medicine which is uniquely suitable for the people of this country.

And finally the approach by health care planners must be multi-disciplinary. This thesis has concentrated on the delivery of primary health care from an anthropological perspective. As such it is limited. Any researchers, for example, who seeks to upgrade the skills

of health care personnel, whether they be traditional birth attendants or government trained nurses and midwives, must be theoretically knowledgable in several fields, i.e. anthropology, sociology and nursing etc. Theory in nursing is continually evolving in an attempt to provide holistic nursing care. It is now most necessary to approach problems related to the human condition through the use of several specialized branches of learning in order to achieve a common aim.

Starting within the last decade of the nineteenth century, the basic science which underlies modern medicine got underway. In the mid-1930s, when the role of bacteria and viruses in illness was discerned research on the details of this important connection began in earnest. Major pathogenic organisms, such as the tubercle bacillus and syphilis spirochetes were recognized. By the mid-1930s, sulfonamides and penicillin entered the pharmacopoeia and towards the late-1930s, techniques of active and passive immunization became effective against diphtheria, tetanus, lobar pneumonia and a few other bacterial infections. It had taken about fifty years of concentrated effort in basic research to reach this level but at that point, it appeared as if a revolution in medical practice had occurred. Medicine was in a state of upheaval. Therapy now existed for a great number of patients whose illnesses had previously been untreatable.

Cures were now available. As we saw it then, it seemed a totally new world. Doctors could now *cure* disease, and this was astonishing, most of all to the doctors themselves (Thomas 1979: 158).

With the end of the second world war, this new medical technology was transferred to third world countries. The result was a rapid decline in mortality rates. The application of this new medical technology, based on the recent discoveries, made the prevention and curing of disease possible. Campaigns, which were cheap in terms of personnel, equipment and medicines, did not demand a high degree of population response and participation. They resulted in a decline in mortality "so rapid as to have no historical precedent" (Myrdal 1968: 1568). Thus began the intense transfer of biomedicine to third world countries. To those of us involved in the delivery of primary health care in the early sixties, it was a time of optimism— a miraculous new age for the deprived masses. But, the miracle never happened.

Instead of modern medical technology reaching out to the vast majority of the world's population in the third world, these health resources became concentrated in the urban areas which accommodate about twenty percent of the population. The facilities became so expensive that only the elite and opulent citizens could afford the specialized services which utilize such costly technology. Thus, only a very small proportion of the total population now have access to such

facilities. Yet, it is these same facilities which absorb the major part of the total health budget.

Meanwhile, the so-called orthodox and conventional health care services devised for Third World populations remain culturally unacceptable and economically unobtainable. The disparity between high costs and low returns in health care has become apparent in both the developed and developing countries, and the economics of health systems have become a major political issue in many countries. In several developing countries, while 5% of the national budget is allocated to the health services, some 30% of that amount is absorbed by the drug bill alone and it should be noted that all the drugs for such relatively poor countries are imported against payment in hard currency (Bannerman 1983: 319)

It is this spiralling cost of modern health services which has forced governments to seriously consider the efficacy of many traditional practices in the local setting. Nevertheless, cost alone should not be the criterion for health care planning. There must be a holistic approach, a fundamental understanding of all the factors (biological, cultural and ecological) which contribute to sickness and likewise the process of getting well. And health care systems to be effective should not be planned in remote offices for broadside application. They will have a better chance of success if they are "designed and tailored to measure zone by zone" (Kelly 1954 cited in De Lourdes Verderese and Turnbull 1975: 39)

In the case of midwifery, a major point of departure should be the social position of the Traditional Birth Attendant in the local community. Furthermore, the programme should be painstakingly planned so as to interdigitate - with the minimum conflict and

maximum exploitation — with local customs and practices related to pregnancy, birth and post-natal care

With this in mind, two nurses, M De Lourdes Verderese and L Turnbull (1975) under the auspices of the World Health Organization, have set down a guide to the training and utilization of the traditional birth attendants in maternal and child health and family planning. Their objective is to provide a general programme which can be adapted to specific health care systems. And as indicated in this thesis, countries such as Indonesia have incorporated the traditional birth attendants into the government health care system and provided them with training. Yet, there are other problems which must be solved.

There does exist, within this type of system, a conflict between the modern and traditional elements of maternity care and family planning. The authors of the Report of the National Workshop to Review Research into Dukun Activities Related to MCH Care and Family Planning (Poerwodihardjo et al 1972) write .

The difficulties that may be encountered in relationships between health personnel and the dukuns are different according to locality:

- a. a sense of competition, however minute, can sometimes be detected between the midwife or nurse and the dukun about childbirth, or between the family planning field worker and the dukun about acquiring acceptors. In rural areas in contrast to urban areas there is almost no competition.
- b. in several localities problems arise about reporting and/ or recording, because the majority of dukuns are illiterate and are not familiar with administration procedures.
- c. other problems encountered in carrying out supervisory activities are transportation difficulties, the question of

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of the problems which exist in relationships between traditional birth attendants and health personnel, such programmes are not totally effective. I would therefore conclude that further research must be undertaken to determine the nature of the conflict and the ways in which both, the different systems and personnel, can adjust to one and other.

The preamble of the charter of the World Health Organization reads as follows: "Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" (Dubos 1979: 32). This is a utopian ideal. From a more practical point of view, I cannot see that disease in our time will ever be completely eliminated. I would hope that research such as that which has been completed, although not directly bringing about an ideal state of well-being, will nevertheless lead to "a modus vivendi enabling imperfect [women] to achieve a rewarding and not too painful existence while they cope with an imperfect world" (ibid: 32).

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