Local healing in northern Thailand: An anthropological study of its effectiveness

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Chapter IX

Clinical research on the effectiveness of local healing
This final chapter on my research findings addresses the question of whether, in the case of HIV and AIDS, clinical research can contribute to the formal recognition of the effectiveness of local healing, and whether such recognition could play a role in the more comprehensive care of HIV/AIDS patients. I will focus specifically on clinical trials, since they are at the heart of all medical advances. In order to reach some answers to the question of the role of clinical research in evaluating the effectiveness of local healing, I first present two clinical trials conducted in Thailand with the purpose of studying the efficacy of traditional drugs in the treatment of HIV/AIDS patients. I then analyze the implications of these results for the care of patients with HIV/AIDS. After a subsequent presentation of the perspectives of local healers on clinical trials, I reflect on the differences between the evaluation of efficacy of traditional drugs through clinical trials as compared to the evaluations proposed by local healers.

Clinical research on traditional drugs for HIV/AIDS in Thailand

Clinical research is a branch of medical science that aims to generate generalizable knowledge in a systematic way to improve medical care or public health. It involves the development of safe and effective medicines, devices, diagnostic instruments, and treatment regimens intended for human use (Gallin and Ognibene 2012). A clinical trial is a planned experiment designed to evaluate the efficacy of a treatment in human beings by comparing the outcome in a group of patients treated with the test treatment with those in a comparable group of patients who receive a control treatment; patients in both groups have to be enrolled, treated, and followed over the same time period (Meinert 1986).

As I have indicated in previous chapters, medical doctors and health personnel in Thailand tend to ignore all forms of lay experience and types of care from medical traditions other than biomedicine. This was particularly the case before the establishment of the Department of Development of Traditional Thai and Alternative Medicine in 2002. Medical research also mostly ignores lay experience. Before the age of ART, the popular use of herbal medicines – a term I use for medicines composed of medicinal plants, whether or not they have been compounded according to a traditional formula – among persons with HIV had little influence on biomedical research aimed at finding an effective treatment for HIV and AIDS. The two national research projects that did study the efficacy of traditional drugs had a limited impact in terms of serving the needs of patients and did not lead to further clinical research on the treatments provided by local healers.

The first of these two projects focused in 2000 and 2001 on a traditional drug that had been used among persons with HIV in Chiang Mai since 1993. It was known as the medicine of Mae (mother) Kim (ya sut mae kim), receiving its name from the old woman who possessed the formula for the medicine. Later it received the brand name GPO Natureplex. The second project, which ran from 1997 to 2003 and was run by the Department of Medical Sciences, was focused on a drug named SH medicine. I will first present the research designs of both research projects, before I discuss their limitations in terms of the actual and beneficial use of these drugs among the Thai population in real life situations.
**Two national research projects on traditional drugs to treat HIV and AIDS**

Both research projects presented below were conducted according to the protocol for new drug development, which includes an in vitro study of an herbal extract (e.g. testing anti-HIV activity, its effect on opportunistic micro-organisms, lymphocytes, and so on; and a chronic toxicity test in animals) and a clinical trial among HIV/AIDS patients.

**Research on the medicine of Mae Kim**

The research project on the medicine of Mae Kim was conducted by the Research and Development Institute of the Government Pharmaceutical Organization. Research publications present the composition of the medicinal plants used in the decoction and the results of a toxicity test and the in vitro effect on lymphocyte proliferation. They reveal that the extract of five medicinal plants, given orally at various doses – one dose over a period of six months and a higher dose over a period of nine months – was not toxic to Wistar rats (Pranee et al. 2000). The extract was further observed to enhance the proliferation of lymphocytes, suggesting that it has a possible stimulating effect on the immune response (Government Pharmaceutical Organization 2007).

In the next research phase, a non-comparative clinical trial of this traditional drug\(^1\) was conducted to test its efficacy. The description of the traditional drug, according to the United States Patent ID No: 6485759, reveals that the botanical combinations help to maintain the Karnofsky Score (KS) or Karnofsky Performance Scale\(^2\) at a high level. This scale, ranging from 0 to 100, measures patients’ general well being and activities of daily life. A score between 80 and 100 indicates that the patient is able to carry on normal activities and work, with no special care needed. The 25 AIDS patients who participated in this study scored at

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\(^1\) The Mae Kim traditional drug used in this clinical trial comprised: (1) herbal compositions consisting of dried plant extracts, in fixed amounts, of five traditional Thai herbs: *Randia siamensis* Craib. (*khat khao*), *Combretum quadrangulare* Kurz. (*sakae*), *Minmusops elegi* Linn. (*phikun*), *Houttuynia cordata* Thunb. (*phlu khao*), and *Borassus flabellifer* Linn. (*nguang tan*); and (2) herbal compositions consisting of the lyophilized or spray-dried powder of aqueous or aqueous organic solvent extract of plant material *Houttuynia cordata* Thunb. in a fixed amount.

\(^2\) The Karnofsky Score (KS) is recommended in the WHO Regional Office for South-East Asia document *The use of Antiretroviral Therapy: A simplified approach for resource-constrained countries* (2002), as an optional tool for the clinical monitoring of the clinical status of an HIV patient, and complements some of the clinical indicators of response to therapy, i.e. gain in body weight and decrease in the frequency and severity of opportunistic infections. KS is designed to classify the physical ability of patients in relation to functional impairment. The lower the KS, the worse the patient’s survival chances for most serious illnesses. Thus KS = 0 denotes death; KS = 10 indicates that the patient is comatose; KS = 20 means the patient is moribund and needs hospitalization with full medical treatment; KS = 30 means the patient is totally dependent, requires hospitalization, but is not facing imminent death; KS = 40 means the patient is dependent and requires specific care; KS = 50 means the patient is partially dependent and requires further medical treatment; KS = 60 means the patient is partially independent; KS = 70 means the patient can perform basic activities of daily living; KS = 80 means the patient is independent, though this requires effort, and is still symptomatic; KS = 90 means the patient is independent with minimal symptoms; KS = 100 indicates the patient is normal.
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a range between 90 and 100, with a mean CD4 count of 420 over a 100 week period. Most patients noted a slight increase in body weight, while some gained significant weight. A follow-up result 100 weeks after treatment with the traditional drugs showed that all patients could live a normal life and were free of opportunistic infections. They had no undesirable adverse effects or new AIDS defining events such as the development of AIDS dementia complex or other cerebral disorders. The effects of this traditional drug are believed to be the result of the anti-infectious activity and appetite stimulation of some of the herbal components of the formula.

GPO Natureplex, the brand name for this herbal product, has been registered as a dietary supplement in Thailand since 1998. Furthermore, since 2002 a patent for this invention has been issued by the United States Patent Office as a botanical combination for treating AIDS and immune deficient patients in order to maintain good health. In 2005, it was launched on the market in Thailand and promoted as an immune system booster suitable for persons who have immunodeficiency signs, such as frequent colds and flu, a herpes infection, allergies or urticaria (hives), weakness and fatigue, or fungal infections. The cost of this product is 300 baht per month (approximately 7.50 euro).

Research on SH medicine

The second research project was conducted by the National Institute of Health of the Department of Medical Sciences, which is a Thai-Chinese collaboration project on traditional medicine. The drug that the research focused on is called SH medicine. It is composed of five medicinal plants and was developed from an ancient Chinese medicine by the Kunming Institute of Botany. The National Institute of Health was responsible for conducting both the in vitro part of the research and the clinical study.

The phase II clinical trial, which was conducted in 2000 in the Sanpatong Hospital of Chiang Mai, achieved a satisfying result. From 28 HIV positive patients who received the SH medicine, 12 patients (42.86%) showed a decrease in viral load (in at least one of the laboratory examinations) compared to before taking the medicine, 13 patients (46.43%) demonstrated no change, while viral load increased in 3 patients (10.71%). The results of the physical and laboratory examination revealed that the SH medicine produced no severe side effects. In conclusion, the SH medicine is, at least in the trial dose, safe for HIV patients (Anchalee 2002).

The phase III trial was conducted from September 2002 to February 2003. The Thai Minister of Public Health said that the result was very satisfying, and no side effects were reported during the trial (ASTV Phuchatkan Online, 23/06/2003). In 2006, the Thai News Service (1/11) reported worldwide that SH medicine was shown to reduce the viral load of HIV patients by 43%, but that it does not eliminate the need for standard ARVs. Thai and

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3 The medicine combines three medicinal herbs from China and two from Thailand: *Artemisia capillaris* Thunb. (*yingchen*), *Astragalus membranaceus* Bge. (*huangqi*), and *Glycyrrhiza uralensis* Fischer (*ganchao*) with *Morus alba* L. (*pluak rak mon*, mulberry root bark) and *Carthamus tinctorius* L. (*dok kham foi*, safflowers).
Chinese authorities planned to distribute this medicine within the three months following this report as an immune system booster for persons with HIV.

In 2007, a researcher of the Kunming Institute of Botany revealed the result of the clinical trial, which showed that the use of SH medicine with standard ARVs not only reduces the viral load and promotes the number of CD4 cells but also cleanses the body of ARV deposits (ASTV Phuchatkan Online, 31/01/2007). The SH medicine has been registered as a traditional drug by the Thai Food and Drug Administration and is recommended to be taken alongside standard ARVs. It is available in the Thai market under the brand name ‘SH Instant’ and costs 1,000 baht (approximately 25 euro) per box (one box includes 21 packages and the recommended dose is one package two times a day).

**Limited relevance of the clinical trials for the treatment of HIV/AIDS patients**

The two research projects presented above were studies aimed to develop new drugs from medicinal plants according to biomedical theory. Healers were not involved in any stage of the research projects and the healing process was excluded as a focus of both. The final evaluation of the research projects was that the researched herbal medicines could be used as immune enhancing products to complement ART.

As described earlier, all patients in the GPO Natureplex clinical trial project were evaluated as being able to carry on daily activities; they needed no special care. All were free of opportunistic infections and experienced no undesirable adverse effects during a 100 week period. However, the findings derived from the CD4 counts in this study revealed that of the 25 patients, 11 patients (44%) showed an increase in their CD4 count, while 9 patients (36%) showed a strong decline and 5 patients (20%) a slight decline in their CD4 count. This variability in terms of CD4 count made the result unexplainable within the current biomedical theory on AIDS. It also raises the question of whether a CD4 count in HIV positive people treated by traditional drugs remains a good predictor of the immediate risk of opportunistic infections and complications.

With regards to the medical treatment of AIDS, currently only a CD4 count and plasma HIV RNA level or viral load are accepted as the major indicators for evaluating the efficacy of any medical intervention. Medicines that are not able to increase the CD4 count and that decrease the viral load are not approved as a drug regimen for HIV/AIDS treatment. Both traditional drugs that were researched in Thailand have only been identified as complementary treatment to ART since they do not tackle the underlying cause of AIDS. This justification is based on biomedical theory, which assumes that HIV, the agent that destroys human immunity, is the cause of AIDS. To successfully treat AIDS, drugs are needed that can suppress or eradicate HIV, and this result can be detected through the plasma HIV RNA level (viral load) and the restoration of T helper cells, the lymphocytes in the immune system that are shown in the laboratory examination results of a CD4 count.

As long as CD4 count and viral load remain the primary predictors of clinical outcome and the immediate risk of opportunistic complications, evidence for creating a good quality of life through the use of traditional drugs alone will be insufficient to prove a drug’s efficacy. This
indicates that the verification of efficacy does not rely solely on reliable evidence but also on the mainstream theoretical explanation used. Traditional drugs, which have been empirically proven in real life practice as being effective, run the risk of failing to prove their efficacy in the realm of biomedicine. Biomedicine’s perspective on reliable evidence is theory laden and leaves no room for different kinds of evidence that are based on other theories.

The biomedical perspective on which the two research projects were based led to marked consequences. The first one is concerned with the drug registration system. Even though the two national studies showed that these medicines lead to a better quality of life for HIV patients due to the improvement in their immune system, proponents of the drugs cannot claim this effect if they are both registered as traditional drugs. According to the Thai Drug Act 1967, it is not allowed by the Thai Food and Drug Administration to add any new indications to the traditional drugs submitted for approval, even if these indications have been proven by scientific research. Both medicines can thus only be registered as a dietary supplement or a traditional tonic.

The second consequence concerns the selection of new drugs in the Thai National Health Security System, as well as certain prescribing restrictions. In order for a person with HIV to access free of charge medicines, he/she has to be diagnosed by a physician, who will then prescribe ARVs and possibly some related medicines from the list of drugs approved by the system. Traditional drugs and dietary supplements are currently not on this list of approved medicines for HIV patients. Therefore, persons with HIV who want to use herbal products have to pay for them themselves, a condition that has restricted the use of such medicines among this group. It is therefore not surprising that the market position of GPO Natureplex is currently advertised not according to its benefit for patients with HIV/AIDS (as focused on in the clinical trial), but as a dietary supplement suitable for “adults combating stressful, fatigued, and weak conditions due to restlessness, for those who are athletic or hardworking, or even for patients during rehabilitation” (Government Pharmaceutical Organization 2007). The lesson learned from both cases is that if the health system remains solely committed to the biomedical theory of HIV and AIDS, medicines that are developed through other medical theories will face difficulties in acquiring evidence to guarantee their efficacy. My research brought to light a type of evidence that differs from the evidence grounded in the biomedical theory of HIV and AIDS. It is based on traditional medical theory and has some characteristics similar to the Karnofsky Score.

**Effectiveness according to the Karnofsky score**

According to traditional medical theory in Northern Thailand, as described in Chapter 3, AIDS is a *khang* disease or a kind of disease that is caused by minute pathogenic organisms. In the case of AIDS, these pathogenic organisms are acquired through unacceptable sexual behavior. Since it causes abnormalities in the blood, it is identified as *khang* associated with blood (*khang lueat*). Improper diet, especially the eating of raw meat, raw fish, or liquor, can activate illnesses related to HIV/AIDS. The principal forms of treatment according to this theory are to stop eating forbidden foods, to use the right medicines to cure bad blood
and normalize blood and wind in the body, and to nourish the body. From this perspective, the presence of HIV is not more significant than the (in)ability of the body to maintain its normal functions. A CD4 count and viral load are therefore not the indicators of a successful outcome. The Karnofsky Score, which is used to measure quality of life, would be more appropriate.

The following two case studies present the experiences of two women with HIV who have been treated with local healing for many years and have remained healthy. Both women exemplify persons who would have achieved a Karnofsky Score of between 90 and 100 – and this for at least ten years – if this tool had been used to evaluate the outcome of the healing that they followed.

Chomchan left her hometown in Northeastern Thailand 20 years ago to accompany her relatives to Chiang Mai, where she started to work as a construction laborer. She married a colleague and in 1996 gave birth to a daughter. One year later, her husband lost his sight. He went to a hospital in the city but no treatment was offered. After staying at home for a week, he died from a fungal brain infection. Following his death, Chomchan had an HIV blood test, but the result was negative. In 1998, she was introduced to Mo Boon by an HIV positive friend when she joined a group that made lemongrass candles, an activity conducted at the deserted temple of Ban Denchai to support the income of persons with HIV. At this time she had started to develop skin papules. Mo Boon gave her an oily medicine for topical use and other traditional drugs. He also advised her to cleanse the body with lemon juice and alum when bathing, and to stop eating forbidden foods. Soon after following the healer’s advice, the papules disappeared. Thereafter Chomchan continued to take traditional drugs and remained healthy for a long time. In 2003, she began a new career at her home as a mulberry paper maker, since her body could no longer tolerate the tough work in construction. She earned 1,200-1,500 baht (approximately 30 to 37.50 euro) per month and received a subsidy of 1,500 baht per quarter from a fund of Princess Somsawalee.

In 2006, Chomchan’s mother-in-law and sister-in-law persuaded her to access the ART service at a district hospital. This time, the result of the HIV blood test was positive and her CD4 count was 109. The doctor suggested that she start ART. Despite the fact that she felt healthy, she decided to take the ARVs because they were free of charge; if she used them she could save around 100-200 baht (approximately 2.50-5 euro) per month compared to the costs of taking traditional medicine.

Unfortunately, Chomchan’s first experience with ARVs was troubling: she developed acute diarrhea, dizziness, hair loss, and detached skin. The drug allergy was so severe that she had to be admitted to hospital. The second drug regimen gave her as many difficulties as the first. After a few trials, a combination comprising four ARVs was found suitable for her. All of the drugs were made by transnational companies and were quite expensive, and the cost of 6,000 baht (approximately 150 euro) per month was supported by the Program for HIV Prevention and Treatment. At the date of our interview, her CD4 count had increased to 425.

It was evident that after taking Mo Boon’s traditional drugs, Chomchan felt healthy. Indeed, she had no AIDS-related symptoms and suffered from no opportunistic infections.
until she took the HIV test, at which point it was determined that her CD4 count was lower than the critical level at which ART is advised, and she decided to start taking ARVs. As far as Chomchan was concerned, the alternation of treatment from traditional drugs to ARVs was the result of economic problems and her belief in the fact that there are specific medicines for treating HIV/AIDS which have been proven effective by modern medicine. According to biomedical criteria, Chomchan needed ART because her CD4 count was so low that she would be susceptible to opportunistic infections. From the prescribing doctor’s perspective, therefore, starting ARVs and stopping to take the traditional drugs took place due to a necessity that was determined by medical criteria and not by apparent AIDS-related symptoms.

The case of Chomchan differs from that of Lawan, a woman with HIV who featured in Chapter 8, in that Lawan insisted on continuing with local healing even though she had been biomedically defined as in need of ART. As mentioned in the previous chapter, her husband was diagnosed as HIV positive in 2004. A year later, she started with traditional drugs that were dispatched through the post by Mo Boon. After three years of treatment, Lawan’s CD4 count increased to 478. But in 2009, when she was under stress from her business and had discontinued use of the traditional drugs, her CD4 count decreased drastically to 133. Although she did not have any symptoms, the doctor urged her to start ART. She was in doubt about what to do next in terms of treatment, but ultimately refused ART because she was afraid of the visible physical side effects. Instead, she changed her lifestyle, started to take care of herself, and once again took the traditional drugs regularly. A few months later, her CD4 count was no longer at a critical level: in mid 2010, it was up to 480 again.

In order to account for biomedically unexplainable or unpredictable outcomes among HIV positive patients, it may be argued that some people’s latency period for HIV (the time after infection in which the virus remains inactive) may be longer than has been previously thought; or that the rates of disease progression differ among HIV positive persons (World Health Organization Regional Office for South-East Asia 2002); or that most patients remain well for many years without ART (World Health Organization Regional Office for South-East Asia 2002); or that CD4 counts vary due to a variety of demographic, environmental, immunological, genetic, and behavioral factors (Taylor et al. 1991; Raboud et al. 1995; Chirenda et al. 1999; Prins et al. 1999; Anzala et al. 2000; Kassu et al. 2001; Lugada et al. 2004; Mair et al. 2007). These observations, like the findings from the abovementioned cases, deserve to be taken into account. However, I would like to emphasize that the perspective of local healing aims to improve quality of life rather than increase CD4 count. From this perspective, local healing has achieved, to some extent, a restoration of the health of HIV patients by normalizing the internal body elements. This makes patients feel healthy and extends the time that they are able to spend with their families. It also changes the way they live, eat, think, and relate to others for the better. Patients become more aware of the meaning of life in the midst of a once seemingly hopeless situation and with limited resources, even if this positive impact may not in every case increase their number of CD4 cells.

The healers in this study were always confident that the healing package that they provide their HIV/AIDS patients causes fewer adverse effects than ART. The anecdotal cases that
the healers selected for my study are cases that not only showed success but also induced me to study them further. As a researcher, I developed a close rapport with the healers. In some degree, they expected me in turn to help them conduct research that could answer the question that is always posed by persons with HIV, namely whether local healing really benefits HIV/AIDS patients and under what conditions. Although the research design of my study does not serve this purpose, some of the contributions of this study could pave the way for clinical research that does aim to answer these questions. Below follows the healers’ point of view, which may be helpful for the design of clinical research that is more appropriate for local healing than that which is based on a biomedical perspective.

Healers’ perspectives on clinical trials

If clinical trials have limitations such as those pointed out above, why then do healers not participate in a clinical study to deliver the evidence that would support their healing effects? In this section, I present two healers who have some experiences in dealing with local health authorities regarding their practices and clinical research. In addition, I present the vision of two healers on the methodology of clinical trials. Internationally, there are many debates on the research methodology of clinical trials among traditional and alternative medicine practitioners and their proponents, anthropologists, and other social scientists. Yet only limited space has been provided for the voice of local healers. On a very modest scale, I will begin to fill in this gap in this section.

Mo Boon said that he was very pleased to cooperate with public health authorities in order to promote comprehensive care for HIV/AIDS patients. But from his experience, local health officers had ignored his attempts to help HIV/AIDS patients, and sometimes he received negative reactions from medical staff. He had a bad experience, for instance, when he was invited to a district hospital to teach persons with HIV about medicinal plants. Many patients were interested in what he taught, but a member of the medical staff prohibited them from using any herbal medicine. According to Mo Boon, this was because the herbal medicine had not passed the fungal contamination test. Another event happened at an exhibition held in the city of Chiang Mai. A public health officer berated Mo Boon over the poor hygiene of his medicine preparation and referred to the names of the medicines in an offensive way. Mo Boon expressed his discontent in one of our conversations:

I am a poor villager who wants to help my neighbors with the knowledge transmitted from my ancestors. I do not have enough funds to improve the preparation of medicines according to the official standard. I am now not able to provide a neat and separated location, and suitable equipment for the production of medicine.

As mentioned, Mo Boon prepares his medicine with simple and cheap equipment. He mixes the powder of medicinal plants and puts it into gelatinous capsules. Sometimes I noticed that his neighbors and clients did it by themselves. All the work is done in the healing center on a floor covered with brown linoleum. This place is also used for all other activities of the center. As a pharmaceutical science graduate, I can say that his medicine preparation is
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unacceptable when compared to official manufacturing practices. It is, however, the best that Mo Boon can offer with his limited resources.

Mo Pinkaew differs from Mo Boon in this aspect. He asked for a huge payment from a health officer who wanted the formulae of his medicines to use in conducting an HIV/AIDS research program. When the negotiation failed, Mo Pinkaew stopped cooperating with the officer. Instead, he collected funds from his family and friends and obtained a bank loan to set up a standard traditional drug factory. He sells his products for a higher price than Mo Boon. Some of the profits have been used to improve his business. Mo Pinkaew is thus independent of government funds. Unfortunately, however, this development goes against the attempt to make the medicines affordable to the poor; I calculated that an HIV patient would have to pay around 2,000 baht (around 50 euro) per month for Mo Pinkaew’s medicines.

Despite the different experiences that Mo Boon and Mo Pinkaew had in dealing with biomedical personnel, both healers shared the same feelings of frustration over the actions of official authorities. Instead of supporting research on local healing for the treatment of HIV and AIDS, biomedical authorities have carried out research on modern medicines that have numerous side effects and a high price tag. This criticism corresponds to the notions of two leaders of HIV self-help groups with whom I spoke, who actively participated in the national campaign for ARV access. They said that the lack of scientific evidence on traditional healing has had a negative influence on the confidence of persons with HIV who want to use herbal medicines. Without reliable studies, these people cannot be sure that taking herbal medicines together with ARVs will not cause harmful drug interactions. These two group leaders also hoped that research on herbal medicines for HIV and AIDS would benefit those who refuse ART due to its side effects, and those who have not yet started. Although herbal medicines – like ARVs – cannot kill the virus, their effect can postpone the moment at which a person needs to start taking ARVs and should therefore be worth the investment.

When I asked the healers Mo Boon and Mo Somsak what they would do if they were invited to participate in a clinical trial in a hospital in order to evaluate the effects of traditional drugs in a systematic way, they responded in different ways.

Mo Boon promptly answered that this is something he would like to do. To Mo Boon, proving the effects of traditional drugs to the medical doctors in the hospitals would be a way to legitimize local healing. It would also be of great benefit to the villagers. But he could not agree with some of the concepts of placebo control groups, because he felt it is immoral to offer patients something that is known to be ineffective. He could accept it if the comparative study was conducted in such a way that the patients had the choice between ARVs and traditional drugs. To assess the outcome of the healing, he proposed a comparative evaluation of both the desirable and adverse effects.

Mo Somsak hesitated to make a decision, since he was not sure of the consequences of conducting research on local healing practices in a hospital setting. This hesitation might be related to the difference in perspective on illness and healing between local healers and medical doctors. He understood that the importance that biomedicine attributes to the chemical substances in herbal medicine, its emphasis on the human biological process, and the further development of these drugs in the service of the drug industry, are totally
different from the approach of the traditional way of healing. For him, the mass production of traditional drugs to make profit from patients is prohibited. The aim of traditional healing is to relieve the suffering of other human beings. Thus, if the research was conducted for the purpose of exploitation, it would be unacceptable to him.

The next question posed to the healers was what they would think if the clinical trial only aimed to evaluate the effects of the medicine, and therefore separated the healer from the healing process. Mo Boon replied that such an approach could be effective to some extent, but that it would not be as good as when the healer was involved in the healing process. Local healing is an experiential activity that uses medication that is individually adjusted by the healer for each individual patient. In addition, the healer also plays an important role in changing the ideas of the patients regarding their way of life and behavior, which can influence their illness. If he had the choice, Mo Boon would prefer a research methodology that is similar to the healing process he practices in everyday life. That is to say, it is conducted in his healing center, and the healer is involved in the whole healing process, i.e. diagnosis, drug dispensing, counseling, as well as social and spiritual support.

Mo Somsak answered that if it was necessary to do research on his medicines, he would first have to tell the healer teachers the purpose of the trial. This would be in order for him to pay his respects to the healer teachers, who are the source of his knowledge and who protect both healer and patient from inauspicious events. Nevertheless, he could not guarantee the outcome of the trial because determining the appropriate traditional drugs and doses for each patient is a complex affair. It requires a deep analysis of the patients’ problems thorough observation of changes in symptoms and progression of the disease. Furthermore, the healing procedures need to be adjusted for each state of the patient.

The ideas of Mo Boon regarding participation in a clinical trial are based on the assumption that nowadays, the decision regarding legitimacy of healing is based on modern medicine rather than on the judgment of communities, as it was in the old days. Denying collaboration with modern medicine is thus not advisable for healers, since they may be accused of fearing verification by scientific methods. Regarding the use of placebos, however, he believes in the moral value of compassion. This does not allow for a search for the truth that reduces patients to experimental objects randomized into a control and a treatment group, especially when they are in a life threatening situation. This idea does not differ from the ethical concerns outlined in clinical trials, namely that it is inappropriate to conduct placebo controlled trials under conditions in which delay or neglect of proven effective treatments would increase mortality or irreversible morbidity in a patient (Temple and Ellenberg 2000: 460).

Mo Somsak’s views pay more attention to moral values. For him, because of the different moral concerns of each healing system, the use of traditional drugs in biomedical treatment and research is something that has to be carefully deliberated. Mo Somsak would feel guilty if things he had done were to affect a patient in an adverse way. To make medicine available for the conducting of research was a new idea to him. He wanted to be sure that the patients, and not only the commercial drug industry, would also benefit from a clinical trial. Finally, the clinical trial should preserve the moral values that have always been the object of his concern.
Clinical trial versus research from the perspective of the healer

It is manifest from the above examples that verifying the efficacy of traditional drugs using a clinical trial protocol would involve use of an evaluation method in the manner of biomedicine, which is not in accordance with the traditional concept of local healing. Clinical trials are in conflict with and undermine the value system and healing process as practiced by local healers in three different ways.

First, in clinical trials the medicine is separated from the healer, healer teachers, healing environment, and other aspects of the medical regimen such as dietary control and ritual healing. These excluded aspects, however, are considered by local healers to be essential parts of the local healing process. A clinical trial based on biomedicine is furthermore always associated, either intentionally or unintentionally, with a modern hospital environment. In such an environment, it becomes difficult to associate the medicines that are used with the traditional values that may benefit the patients.

Second, a clinical trial based on biomedical science requires medical doctors to be the leading professionals in the research team. Medical doctors are always placed at the top of the research team and are fully responsible for the healing procedures provided to the patients. In case local healers were to participate in clinical research, such a hierarchy within the research team would make it difficult for them to develop a relationship with the patients, such as is done in their own healing setting. For them, it would also be much harder to perform certain rituals, such as worshipping the healer teachers. This is one of the main reasons why the healers would prefer to conduct such research in their own healing setting, where they are, with the consent of their patients, fully responsible for the course of the healing.

The final conflict has its roots in the values that underlie the intention of doing the research. Successful verification of the efficacy of a medicine creates a commercial potential, because the product can be used independently of the healer and the healing context. Commoditization of traditional medicine, which is one of the three parallel developments of traditional medicine in Thailand as described in Chapter 1, may divert the use of traditional drugs from their intended purpose – to relieve the suffering of human beings – to the purpose of maximizing profit.

In sum, the gap between what is constructed in conventional clinical trials and what is expected as an appropriate clinical study from the point of view of the local healer results from the reductionist characteristics of clinical trials, which are in conflict with the nature of local healing. The unequal power relations between biomedical staff and local healers also contribute to this distance. The intention to do research that is in conflict with local healers’ values may, for the healer, be a reason not to participate in such a study.

From this analysis, the questions that need to be considered further are: What is the proper research methodology whereby healers, their medicines, the relationship between healers, patients, and healer teachers, as well as the surrounding healing environment are taken into account? How should one deal with the inequality of power relations in clinical research? How can a research project be adjusted to achieve the purpose of verifying the effects of medicines while maintaining the values held by the healers? This research has tried...
to contribute some answers to these questions. I will present a summary of this contribution in the next and final chapter.

**Conclusion**

A proof of efficacy that is based on a biomedical disease theory has its limitations when it is applied to traditional drugs. The development of and the discussion about two clinical research projects on traditional drugs to combat HIV/AIDS in Thailand were presented above to illustrate these limitations. It was demonstrated, for instance, that some of the biological parameters used to indicate the proof of drug efficacy in these trials could not explain appropriately the health status of persons with HIV who had taken the traditional drugs. This limitation was the result of the research design that aimed to answer whether the traditional drugs are effective according to the biomedical theory of AIDS. In addition, it was shown that when the efficacy of traditional drugs in treating HIV/AIDS is evaluated in a clinical trial, it is not only reliable evidence of the healing outcome that is required, but that the outcome also has to be explainable within the present biomedical theory of AIDS. From this theoretical perspective, local healing that has been proven effective in practical experience runs the risk of failing to prove its effectiveness in a clinical trial.

This analysis leads to the controversial question of what kind of clinical research is appropriate to the nature of local healing. This question would be well treated if the views of the healers were included, and when the following (as examples) are taken seriously: opinions countering the reductionist characteristic of clinical trials; the inequality of power relations within the research; and the values held by local healers that forbid the inappropriate commoditization of traditional drugs. My attempt to answer the question raised above is presented in the concluding chapter, in which my findings are summarized as an answer to the research questions.