

## CHAPTER VI

### CONCEPTUAL FRAMEWORK

Tuberculosis treatment should be viewed both as a personal health measure to cure the tuberculous individual and afford him or her symptom relief and a public health measure to halt or interrupt transmission of Mycobacterium tuberculosis in the community. Therapy of tuberculous infection prevents spread of disease in a susceptible host and chemoprophylaxis spares others the possibility of becoming the next victim from contact with the sick patient.

The United States Centers for Disease Control (CDC) devised a strategic plan for tuberculosis elimination in America. The plan included: (1) adequate therapy of all cases of active disease (2.) prevention of new cases of tuberculosis by treating those who are currently infected but not yet diseased, and (3.) prevention of infection of persons who are not currently infected.<sup>(8,29)</sup> The plan is very intensive and indeed if it is well-implemented spells tuberculosis elimination. Despite the controversies arising from preventive therapy of tuberculin reactors without other significant risk factors for the development of disease and the identification of persons who are infected but not diseased, the design is far from impossible in a developed country where advances in technology and availability of

medications are not wanting. Putting it in the context of a developing country like mine where priority for health maintenance, progress, research and development has secondary billing to national defense and internal and external security, protection of borders and promotion of education, the strategies are too ideal to be true.

Whereas developed nations talk of tuberculosis elimination, in the Philippines we are haunted by treatment failures, drug resistance and relapses.

Thus, in our country, tuberculosis outbreaks continue to occur.

It is believed that proper ventilation plays an important role to reduce the likelihood of spreading the disease.<sup>(29)</sup> How can this be achieved in a developing country as the Philippines, where majority of the people are sheltered in shanties with walls made of cartons taken from the garbage, roofs of rusting recycled iron sheets and empty cans and windows of used plastic materials and coconut leaves? How is it possible to eradicate tuberculosis or minimize its infectiousness when it is customary for Filipino household to accommodate under one roof bringing grandparents, parents, children and grandchildren into close and prolonged contact with each other? How can we afford to live in luxury and enjoy the comforts of our homes when we as physicians feel that we have not accomplished enough as far as curative and preventive medicines are concerned?

In clinical practice, we have observed that a number of diseased subjects failed to respond immediately to the administered drug. What is perplexing, at times, is the fact that the patient manifests resistance to at least one anti-tuberculosis drug either before he or she starts therapy or during the treatment course as he or she religiously takes his or her medicines. In a Philippine hospital setting, real-life situation reveals that some tuberculous patients who seek consultation for the first time, already harbor drug resistant tubercle bacilli.

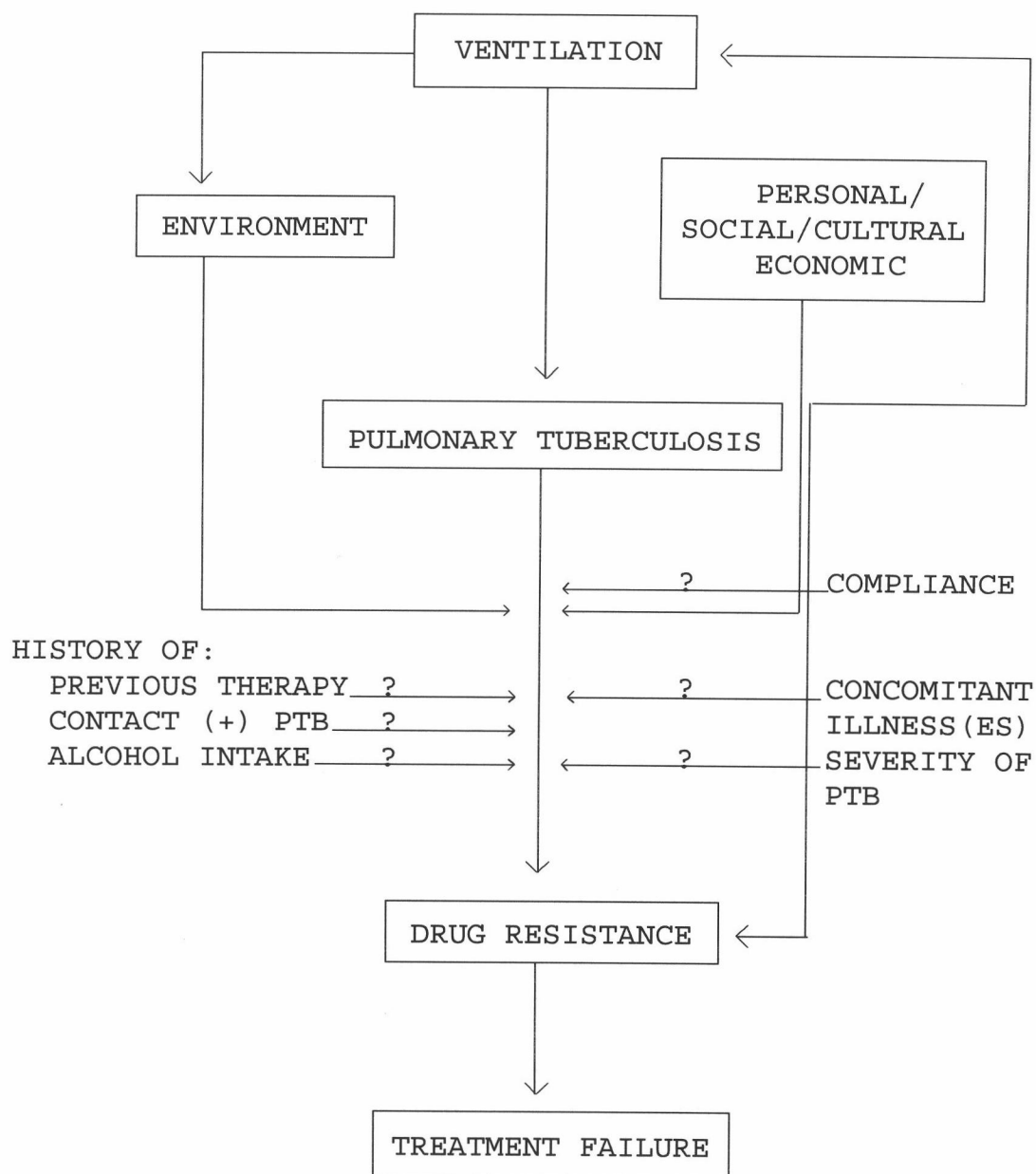
The Sto. Tomas University Hospital is chosen by the investigator as her study setting. This is a nonstock, non-profit teaching hospital of the University of Sto. Tomas, a private institution founded in 1611 by the Dominican friars from Spain. It has two divisions : the private division and the clinical division. The private division caters to patients who come for private consultations under the service of their physician of choice who are themselves staff of the Faculty of Medicine and Surgery of the University. The clinical division services indigent patients who can not afford the "luxury" of choosing their own attending physician due to financial constraints. They are also taken cared of by the same consultant staff of the private division. The university has numerous outreach programs to different depressed areas in the Philippines under the tutelage of the Medical Missions, Incorporated.

Though the oldest University, definitely it has not grown senile. The hospital is said to be known for its highly qualified professional staff who remain compassionate to the needs of their patients. People from various walks of life and all classes of society, from Aparri (the northernmost place in Luzon island) to Jolo (the southern tip of Mindanao close to Borneo) go to this hospital for consultation, check-up and treatment. With these kinds of clientele, it is but our responsibility as clinicians to provide our patients not only the cure (whenever it is possible) and comfort they come to seek for but also give them guidance, education and care that they deserve to have. For a Filipino patient, the doctor epitomizes hope and comfort and promise. The physician becomes the healer, idol, teacher, master, parent, confidant, friend and savior. With such a harmonious physician-patient relationship, one becomes responsible for the other. The clinician expects his or her patient to comply with the agreement written on the prescription order and the patient expects the best treatment for his or her ailment. Thus, the clinician continues the task of searching for the truth, the valid and reliable, not necessarily new, but that which will give him or her sufficient information which opens to strategies he or she can apply to avoid inadequate or erroneous treatment management, to select proper treatment regimen for each individual patient and to achieve the target treatment outcome. With this task and faced with the nagging problem of tuberculosis and drug resistance in the Philip-

piners, the project was conceived. Searching for epidemiologic factors as possible risks for development of drug resistance among adult Filipino tuberculous patients and hopefully identifying them will serve as a guide as we design our management scheme for each patient we encounter in our clinics. Identification of the possible risk factors for emergence of resistant strains in a susceptible host is a great help in the care of a tuberculous patient. It is not only a lifesaving measure but it also increases a person's capacity and potential for productive work by preventing disability due to the disease. By knowing the factors, we can therefore predict the patient at higher risk from the low risk ones thus making therapy cost-effective as well. The patient will have saved approximately \$350.00 for the whole duration of therapy.<sup>(20)</sup>

In the community level, it is hoped that prevention of tuberculosis spread will materialize even in a developing country.

A diagram of the conceptual framework is seen in Figure 1.



HOW CAN WE CONTROL / INTERVENE?

**Fig. 1. CONCEPTUAL FRAMEWORK OF DRUG RESISTANCE  
AMONG FILIPINO TUBERCULOUS PATIENTS**