

CHAPTER 2

Literature Review

Excessive alcohol consumption or alcoholism causes both physical and social problems. Little study has been done with regard to alcohol abuse in Thailand. However, most of the attention has been focused on the costs to the patients of diseases resulting from alcohol abuse. Previous studies have classified costs into various divisions and they are used as basic concepts in our study on the treatment costs of alcoholism.

Definition of Alcoholism

Many studies have defined "alcoholism" in different ways. Some concepts refer only to physical, psychic or biochemical components while other concepts mention all of these. However, the definitions, as well as external signs and symptoms of all victims are basically alike including some kinds of treatment.

The concept of E.M. Jellinek (1960) was used to contribute to contemporary conceptions of alcoholism. His formulations were based on responses to a questionnaire on the symptomatology of alcoholism administered to 98 members of Alcoholics Anonymous in the United States. His description is derived from observing 2,000 patients. Accordingly, he defined alcoholism as "any use of alcohol beverages that causes any damage to the individual or society or both" and also classified the group of symptoms as Alpha, Beta, Gamma, Delta and Epsilon alcoholism. Alpha alcoholism refers to an undisciplined use of alcohol to relieve physical or emotional pain and is represented as purely psychological continual dependency. Beta alcoholism involves physical damage resulting from alcohol usage in the absence of either physical or psychological dependence. Gamma alcoholism is concerned with significant symptoms that include a constant craving for alcohol, loss of drinking control, as well as withdrawal symptoms such as morning drinks

and morning shakes. Delta alcoholism is a symptom that is related to an inability to abstain from alcohol rather than a loss of control over drinking. Epsilon alcoholism refers to periodic or bout drinking. The pattern consists of infrequent short-lived phases of drunkenness, with lengthy periods of abstinence in between.

The World Health Organization (WHO) defines Alcoholism as a repeated drinking of alcoholic beverages to an extent that exceed normal dietary use or ordinary compliance with the social drinking customs of the community. The amount of drinking interferes with the drinkers' health, interpersonal relations or economic functioning.

Alcoholic Anonymous (AA), which is one of the oldest and most successful treatment program for alcoholics, defines alcoholism as a disease. The use of the word "disease" usually has two separate meanings. First, alcoholics have diseased bodies due to a changing physiognomy brought about by long years of drinking. Second, alcoholics have diseased minds. The disease is often related to spiritual failing.

In Thailand, a study by Anand Sukonthoapirom Na Phatthalung (1994, 55 in Sermsuk Rarddussadee, 1996) defined a symptom of alcoholism as a deviating personality as well as habitual consumption of alcohol.

In conclusion, alcoholism can be defined as disease that significantly affects physiology, psychology and social well-being of an individual.

Progressive symptoms of alcoholism

The progressive symptoms of alcoholism help us to understand what alcoholism is. Davidson (1980) explains that the behavioral characteristics of alcoholics are as progressive as their tolerance to alcohol and the course of the disease itself. These progressive symptoms can be grouped as pre-addiction, addiction and the final stage.

1. Pre-addiction

This stage begins when drinking is no longer social but rather a means of psychological escape from tensions and inhibitions. Habitual drinkers begin to fall into a definite pattern, namely gross drinking behavior, blackouts, gulping and sneaking drink, and chronic hangovers. Gross drinking behavior occurs when the drinkers begin to drink more heavily and more often than their friends do. Getting drunk becomes a habit. A blackout or temporary loss of memory is a significant symptom. Gulping and sneaking drink display an anxiety to maintain a drinking level. They begin to gulp drinks at parties and sneak extra ones when they think nobody is looking. Chronic hangovers become frequent for the alcoholic, as they grow more and more reliant on alcohol as a shock absorber to daily living. Hangovers become more frequent and increasingly painful.

2. Addiction

The addiction stage is the stage in which drinkers have been drinking heavily but not always conspicuously. They develop the symptoms of addiction with increased rapidity. The patterns in this stage are namely loss of control, the alibi system, morning drinks, changing consumption patterns, antisocial behavior, loss of friends and consequently loss of job. Loss of control is the most common symptom that a psychological habit has become an addiction. The alibi system, which derives from their loss of control, induces feelings of guilt and shame. Morning drinks happens when drinkers need a drink in the morning to start the day right. They cannot face the hours ahead without alcohol. Changing consumption patterns derive from pressure of family, employer or both. The drinkers try to stop drinking by changing the type of alcohol they consume or setting the rules as to when they will drink and what they will drink, such as “only three martinis on weekends”. Antisocial behavior has caused the drinkers to believe that only other alcoholics can understand them. So,

they prefer drinking alone or with other alcoholics. Loss of friends and job is the result of antisocial behavior. Their continuing antisocial behavior causes friends to avoid them.

3. Final stage

By this stage, alcoholics have no choice they must drink. They follow a pattern; namely, drinking sprees, tremors, protecting the supply, unreasonable resentments, hopeless fears and anxieties, a collapse of the alibi system and the surrender process. Drinking sprees are a state in which alcoholics disregard everything. These periodic flights into oblivion might be called “drinking to escape the problems caused by drinking”. Tremors occur when the hands of alcoholics’ tremble as a result of forced abstinence and are combined with hallucinations. These tremors are known as delirium tremens. Protecting the supply means that having an immediate supply of alcohol available becomes the most important thing in their lives. Unreasonable resentments are behavior displaying hostility to others. This can be a conscious effort to protect their precious liquor supply. Nameless fears and anxieties are feelings of impending doom or destruction. These fears frequently show up in the form of hallucinations, both auditory and visual. A collapse of the alibi system means that alcoholics finally realize that they can no longer make excuses or put the blame on others. They have to admit that their drinking is beyond their ability to control. Surrender process is the stage in which alcoholics have to give up the idea of ever drinking again and are willing to seek and accept help. If the person has not already suffered extensive and irreversible brain damage, there is a strong likelihood that some form of alcoholic psychosis will develop.

Diagnosis

The criteria for the diagnosis of alcoholism have been helpful in treatment. Because of it extensive treatment programs have developed from an understanding of the various symptoms and signs of alcoholism. So, the National Council on Alcoholism developed diagnostic criteria

from a cluster of symptoms. The criteria set has been applied to promote early detection prevent over diagnosis and establish treatment purpose.

The criteria data are assembled in two “Tracks”. Track I- physiological and clinical, and Track II- behavioral, psychological and attitudinal. Both of them have major and minor criteria. Alcoholism will be defined, if one or more of the major criteria are satisfied, or if several of the minor criteria in Track I and II are present (see appendix A).

Alcoholic treatment

Treatment of the alcoholic consists of physical and mental treatment. Physical treatment is the treatment of complications and dependence. Physical complications are symptoms or diseases that are derived from organ damage by alcohol such as gastritis, hepatitis, cirrhosis, disorders of heart muscle or skeleton, beriberi, hypoglycemia, anemia from folic acid or iron deficiency. Physical treatment can relieve symptoms or disease. Physical dependence is illustrated by withdrawal symptoms, which appear when the patients stop drinking. Treatment of physical dependence relieves some of the symptoms and reduces the likelihood of severe withdrawal such as convulsions or delirium tremens. Mental treatment is the treatment of complications such as alcoholic hallucinations, alcoholic jealousy or depression by using medical or group therapy.

Resources used for alcoholic treatment can be estimated in terms of costs. Economists define cost as the value of resources used to produce something, including a specific health service. Cost elements can be classified in several ways, depending on each study. Likewise, estimating the costs of treatment or health services can be classified in different ways, depending on the purpose of the study, such as a calculation the costs to the provider (health care program) or the cost to patients or both.

Reviews of literature are a guide for the study of the treatment costs of alcoholism. From an economist's point of view, there are several ways to determine the cost of disease. For example, Prasai (1995) analyzed the costs and performance of tuberculosis patients in seeking care: a case study on the Yosse TB center. He calculated total costs to patients prior to formal care by categorizing them into direct costs and indirect costs. Firstly, direct costs are costs to the patients prior to formal care including both accounting and opportunity costs of time. Accounting cost is the actual expenditure on travelling and treatment namely the travelling fares of patients, drug costs, consultation costs and lab cost. Opportunity costs are income or benefit foregone due to illness; those are time costs incurred when seeking care, time costs due to days of work lost before seeking informal care, waiting and treatment time costs prior to the formal care. Secondly, indirect costs are costs to the relatives, which consist of accounting and opportunity costs. The accounting cost is the actual expenditure on travelling with patients. Opportunity costs are time costs when travelling and attending to the patients including time costs when taking care of them at home. The study emphasizes the patients' view. In this conjunction, the two kinds of costs are considered: accounting costs which is the actual expenditure on material and lab, transportation expense for patients and their accompanying relatives, consultants and medicines. Another is opportunity cost, which is the income or benefit foregone as well as time lost.

Kunaruck Kamtharard (1996) studied the cost of lung cancer related to smoking from 2 viewpoints: hospitals and patients. She classified the cost into direct cost and indirect cost. Direct cost is also derived from treatment costs (cost of drugs, labor, equipment, supplies, land, capital) and transportation fares of patients and their relatives. Indirect costs consist of time cost (travelling time, waiting and treatment time, etc.) loss of income due to illness, loss of income due to premature death, loss of income due to accompanying taking care of patients. Primary data was collected from direct interviews with patients and relatives. Secondary data is collected from hospital records. The study

used an incident approach to estimate the costs attributed to diagnosis and treatment until patients recovered or died. The first step was to estimate costs for the patients who were diagnosed as having lung cancer in the year 1994. The costs consist of treatment costs, travelling costs, travelling time and waiting time costs, loss of income due to illness and loss of income of attendants taking care of patients. Then, costs of diagnosis and treatment were estimated until the patients recovered or died.

Some foreign studies such as Berry and Boland (1971) estimated the external costs of alcohol abuse and alcoholism in the United States. They divided them into costs due to alcohol abuse and costs associated with alcohol. The National Institute on Alcohol Abuse and Alcoholism sponsored the study, and they have the responsibility of formulating and recommending national policy and goals regarding the prevention, control and treatment of alcohol abuse and alcoholism. The summary of economic costs due to alcohol abuse and associated with alcohol are shown below.

The economic costs due to alcohol abuse include the costs of lost production, health care costs, the costs of motor vehicle accidents, costs of fire and costs of social responses such as the social welfare system and alcohol programs. The results of estimated economic costs due to alcohol abuse were 29,428.3 millions dollars. This amount includes the cost of lost production equal to 14,869.2 millions dollars, health care costs which were 8,293 millions dollars, the costs due to motor vehicle accidents of 4,666.6 millions dollars, costs because of fire which were 270 millions dollars and the cost of social responses were 1,329.5 millions dollars.

In addition, the economic costs associated with alcohol include the costs of violent crime associated with alcohol, and the costs to the criminal justice system of coping with such violent crime. The results estimated economic costs associated with alcohol were 1,995.7 millions dollars. This amount includes the costs of violent crime associated with alcohol at 1,466.4 millions dollars and the costs of the criminal justice system at 529.3 millions dollars. Therefore, the total economic costs due

to alcohol abuse and costs associated with alcohol were 31,424 millions dollars as shown in table 2.1.

Table 2.1 Economic costs due to alcohol abuse and costs associated with alcohol

Type of costs	Costs (millions dollars)
Economic costs due to alcohol abuse	
1) Cost of lost production	14,869.20
2) Health care costs	8,293.00
3) Cost of motor vehicle accidents	4,666.60
4) Cost of fire	270.00
5) Cost of social response	1,329.50
Total	29,428.30
Economic costs associated with alcohol	
1) Cost of violent crime associated with alcohol	1,466.40
2) Costs of criminal justice	529.30
Total	1,995.70
Total economic cost due to alcohol abuse and associated with alcohol	31,424.00

Source: Berry, R.E.Jr. and Boland, J.P. The economic cost of alcohol abuse New York: Free Press, 1977.

Previous studies classified costs into various perceptions. Prasai's study emphasized the expenditure for patients and relatives. The study did not estimate some items of hospital costs such as overhead costs, labor costs, capital costs and equipment costs. Kunarak's study estimated costs to the patients and hospitals but she excluded overhead costs. If the two included overhead costs, the results would be clearer. The method used to collect data concerning patients in the two studies was direct

interview. So, the data was almost complete. Berry and Boland's study mentioned cost-related alcohol problems in the USA. Even though the data was collected from secondary sources it was complete as many institutions collect data related to alcohol. In Thailand, the unavailability of data provides a great hindrance in the study of the externality costs, as studies mostly concentrate on behavior and social consequences.