CHAPTER 3

PROPOSAL

Amphetamine use and factors leading to Amphetamine use among Assumption University students in Bangkok

3.1 Introduction

3.1.1 Rationale of the study

Amphetamines are central nervous system stimulants which was first introduced in the 1930s as a remedy for nasal congestion. They are easily available and truck drivers, students and athletes use them to prolong their normal periods of wakefulness. Amphetamine can affect not only the brain but also the heart, lungs and many other organs. Short-term effects can appear soon after a single dose and disappear within a few hours or days. Long-term effects can appear after repeated use over a long period.

A medically prescribed low dose can have physical effects on the body. They are loss of appetite, rapid breathing and heartbeat, high blood pressure and dilated pupils. Larger doses may produce fever, sweating, headache, blurred vision and

dizziness. Very high doses may cause flushing, pallor, very rapid or irregular heartbeat, tremors, loss of coordination and collapse. In some cases, the consequence may be burst blood vessels in the brain and heart failure.

Short-term Amphetamine use may produce psychological effects which include a feeling of well-being and great alertness and energy. With increased doses, users may become talkative, restless, excited and may feel a sense of power and superiority. Amphetamine use may also results in bizarre behaviour and many of the users become aggressive. Chronic heavy users may also develop amphetamine psychosis which is a mental disturbance, similar to paranoid schizophrenia. Amphetamine users might be prone to sudden, violent and irrational acts. In one Canadian study, violence was the leading cause of Amphetamine related deaths. Violent death was at least four times as common among regular Amphetamine users as among non-users of same age and sex. (Toronto Alcoholism and Drug Addiction Research Foundation, 1991)

In 1988, the study on Amphetamine use among truck drivers which was conducted in various regions of Thailand showed that 82.5 percent used Amphetamine (Mongkolsirichaikul. et al., 1988). In 1993, the study which was conducted in Thailand by the Office of Narcotic Control Board as shown below (Table 3.1) proved that there were 9,090 Amphetamine addicts among students.

Table 3.1 The number and percentage of students addicts classified by type of drug, 1993.

Type of Drug	Number	Percentage (%)
Heroin	3209	4.5
Opium	47	0.07
Amphetamine	9090	12.66
Marijuana	36,704	51.12
Solvents	22,740	31.65
Total	71790	100.00

Source: Office of Narcotic Control Board, 1995

In 1993, from the prevalence study conducted in Thailand and Bangkok by the Office of Narcotic Control Board, it appeared that there was 3.8 Amphetamine users per 1000 population in Thailand and 6.3 Amphetamine users per 1000 population in Bangkok.

Moreover, according to the data of Office of Narcotic Control Board's treatment centre, students who came for treatment for Amphetamine use had increased from 1991 through 1995. Again in 1996, according to the Department of Medical Science, Ministry of Public Health, Amphetamine addicts among secondary and vocational students in Bangkok was 7.1 per 1000 as shown below in Table 3.2.

Table 3.2. Number and percentage of students who are Amphetamine addicts in Bangkok (per 1000)

Bangkok	Test	Found	per 1000
Secondary School	1,062	7	6.6
Vocational	208	2	9.6
Total	1270	9	7.1

Source: Department of Medical Science, 1995 to 1996, Ministry of Public Health

As I have mentioned above, we can learn that Amphetamine use is a major problem in society. According to the above Table this department has never tested University students. Therefore, we need to start to test Assumption University students on Amphetamine use.

It became apparent that the use of Amphetamine was widespread, therefore, Thai government and non governmental organisations are making an effort in tackling this problem. They have shown their support for research and campaigns on drug education and prevention program. Royal Thai Police Department also strictly controlled Amphetamine production and trafficking as shown below.

Table 3.3 Number of Amphetamine cases and Quantity of Amphetamine seized in Thailand by Police, 1994 - 1996.

Type of Drug	Number of cases			Quantity of Amphetamine seized(Kg)		
	1994	1995	1996	1994	1995	1996
Amphetamine	13,508	20,064	51,014	764.40	776.01	1366.13

Source: Anti-narcotics Police Bureau, 1997

Especially with regard to these points, it is important to conduct research in Assumption University, since it has not had any information on Amphetamine use. This study on Amphetamine use and its related factors can also serve as a useful background in the intervention of Amphetamine use, which will be conducted in Assumption University.

3.1.2 Background on Assumption University

Assumption University is the private international university in Bangkok where the media of education is in English. There are approximately 16,000 students in the 1997 academic year. According to the registration office of Assumption University, 95% of the students are Thai nationality and 3% of them are students from overseas. There are 45% of male students and 55% of female students in Assumption University. Some of the students who study in Assumption University come from

overseas and others are those who cannot enroll in the government universities. The available programs in Assumption University are undergraduate program, graduate program and Doctorate program. Since the study programs are in English, students have to try very hard for their academic achievement.

3.1.3 Purpose of the study

The current data gathered by the Office of Narcotic Control Board showed the changes in rates of Amphetamine use and there were many studies of the factors influencing on drug use, but not enough on Amphetamine use concerning University students. The proposed survey is designed to measure Amphetamine use among Assumption University students. The research undertaking is facilitated by communication with some research centers and government institutions. The present report, as the title suggests, represents the first attempt to investigate the extent of the problem by trying to find out the prevalence rate of Amphetamine use and of influencing factors on Amphetamine use among Assumption University students. The questions have to answer in this study are:

- What is the frequency of use of Amphetamine?

- What kind of students use Amphetamine?

- What are the influencing factors that promote Amphetamine use?

- What are their source of getting Amphetamine?

- What are the consequences of using Amphetamine?

- How has the problem of Amphetamine use among Assumption University students become so popular in society?

3.2 Objectives of the research proposal
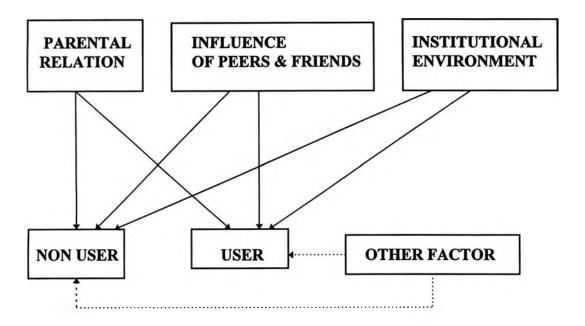
The objectives are as follow.

1. To determine the prevalence rate of Amphetamine use among Assumption University students.

2. To find out the factors based on parents, peers and institutional background which are related to Amphetamine use among Assumption University students.

3.3 Research Questions

1. What is the extent of Amphetamine use among Assumption University students?

2. What are the factors based on parents, peers and institutional background which are leading to Amphetamine use?

3.4 Conceptual Framework

After studying the literatures, I have designed the conceptual framework as follows:

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┌─────────────┐   ┌─────────────────┐   ┌─────────────────┐
│  PARENTAL   │   │   INFLUENCE     │   │  INSTITUTIONAL  │
│  RELATION   │   │ OF PEERS & FRIENDS│  │  ENVIRONMENT    │
└─────────────┘   └─────────────────┘   └─────────────────┘

┌─────────────┐   ┌─────────────┐   ┌─────────────────┐
│  NON USER   │   │    USER     │◄--│  OTHER FACTOR   │
└─────────────┘   └─────────────┘   └─────────────────┘
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In the conceptual framework the factors influencing to become either Amphetamine user or non-users are parental relationship, influence of peer and friends and, institutional environment. They are the most influencing factors than other factors. Other factors include curiosity, boredom, feeling good, availability of Amphetamine etc. For this study it will be more effective to concentrate only on the three most influential factors.

In this conceptual framework, it is assumed that parent relationship sometimes creates anger or frustration on the one hand and boredom in the students on the other hand. Ambitious parents push their children to get good grade at school. When the students could not achieve as the parents expected, students naturally get frustrated. To get away from the frustration or relax the tension they may try to use Amphetamine for the first time. Some parents are too busy to take care of their children with the result that the children get neglected and bored. This situation leads them to test Amphetamine as a way of getting excitement.

In some cases their senior friends used to take them along to have a good time and insist them to experiment Amphetamine for fun. Sometimes as young adolescents they try to test everything for the first time out of curiosity. Some students can not achieve good grade in the class inspite of their hard-work. In this case to become alert and refreshed, they use Amphetamine as a kind of stimulant.

3.5 Research Methodology

3.5.1 Research Design

Research design is a cross sectional study, which examines of the prevalence rate of Amphetamine use and related factors at a given time among certain population. The data will be collected through self-administered questionnaire.

3.5.2 Population

The population of the study will compose of all Assumption University students which is composed of approximately (16,000) students who will enroll in first year to fourth year in the semester 1/1998.

3.5.3 Sample Size

Sample size is estimated by using the following formula.

Sample size = n / 1 - (n / population)

$$n = Z * Z (P (1 - P)) / (D * D)$$

*Z = percentile of standard normal distribution determined by the specified confidence level which is 1.96.

P = Proportion of prevalence of Amphetamine use

D = Acceptable error

Reference : Kish & Leslie, Survey Sampling, John Wiley & Sons, NY, 1965

Since Assumption University does not have any data for Amphetamine use, I used the following data from the Office of Narcotic Control Board which was conducted in Thailand, 1995.

If she used as 3.8/1000 population

$$n = Z * Z (P (1 - P)) / (D * D)$$

$$n = \frac{(1.96)^2 \; 0.0038 \; (1\text{-}0.0038)}{(0.002)^2}$$

n = 3635

$$n = \frac{3635}{(1\text{-}3635 / 16{,}000)} = 4702$$

If she used as 6.3/1000 population

$$n = Z * Z (P (1 - P)) / (D * D)$$

$$n = \frac{(1.96)^2 \; 0.0063 \; (1\text{-}0.0063)}{(0.002)^2}$$

n = 6012

$$n = \frac{6012}{(1\text{-}6012 / 16{,}000)} = 9619$$

Since the budget allocation is 100,000 baht, we can do on 4000 students sample.

3.5.4 Sampling Procedure

The target population for this study will be all first year to fourth year student from Assumption University in the 1997 academic year. The sample will be 4000 and a stratified random sampling technique will be used for sampling. The purpose of using this technique is to maximize the amount of information for a given cost. There are approximately 16,000 students in Assumption University during this academic year 1997. They are 3700 first year students, 3656 second year students, 3870 third year students and 3850 fourth year students which are obtained from Assumption University Registration Office.

Educational level first year to fourth year, becomes the strata by which a proportion of students will be sampled. The 1997 enrollment shows that 24.5% of total number of students are first year students, 24.4% of total number of students are second year students, 25.5% of total number of students are third year students, 25.6% of total number of students are fourth year students. Therefore a total number of 935 first year, 900 second year, 980 third year, and 980 fourth year will be selected by random sampling technique according to their Administrative code which is assigned by Assumption University Registration office. The students who are selected from simple random table for each year will be given questionnaire by mail. When they receive the questionnaire they will be asked to complete and send it to my letter box.

3.5.5 Study Instrument

Self-administered questionnaire will be used. The questionnaire will consist of 4 parts follows:

a- **Demographic variables**

Age, sex, socio-economic factors, family composition, education.

b- **Interpersonal variables**

Parental relationships, peer relationships

c- **Intrapersonal Variables**

Students' education

d- **Drug variables**

- Amphetamine usage, ever

- Amphetamine usage, recent or current

- Amphetamine use history

- Reason for Amphetamine use

- Methods of Administration and dosage

- Availability of Amphetamine

- Effects of Amphetamine use

- Treatment history

3.5.6 Data collection procedure

The questionnaire will be sent to the selected students during 1998 academic year by mailing through the address obtained from the registration office of Assumption University. When they receive the questionnaire, they will be asked to complete and send it to my letter box.

3.5.7 Data processing

Descriptive statistics, analysis of categorical data and correlation between the variables would be carried out by using the computerised statistical package for social science (SPSS/PC), which will operate the following statistical tests: percentage, mean, standard deviation, chi-square test, t-test and correlation, multiple regression, multiple logistic regression.

3.6 Operational Definitions

In order to understand the leading factors that play in different aspects of Amphetamine use, it is necessary to define the terms. Such operational definitions should clarify the perspective of the present study and also avoid confusion due to ambiguous terminology, as described below in Table 3.4.

Table 3.4: Operational Definitions

Drug	Any psychoactive substance - that is any substance that affects the central nervous system and alters mood, perception or consciousness.
Stimulants	The class of drugs known as stimulants contains widely disparate groups of substances with few properties in common other than their ability to increase activity in the central and automatic nervous systems.
Amphetamine user **Past user**	A student who has used Amphetamine in the past 12 months.
Current user	A student who has used Amphetamine in the past 30 days.
Prevalence	It measures all of the existing cases at a given point of time. (Smith & Maurer, 1995)
Prevalence rate	It measures all of the existing cases at a given point of time per total population. (Smith & Maurer, 1995)
Parent	Parents mean both natural father and mother not adopted or foster parents.
Parental control	A dimension of parenting that describes how restrictive and demanding parents are.
Parental relation	It includes co-residence, close contact, expression of love, confidence of the students.

Peer	Peer means students and their contemporaries, i.e. the students of same age group, same backgrounds, friends, students attending the same, etc.
Peer/friends influence	It includes close contact, intimacy, mutual respect and reliance etc, with peer and friends.
Institutional Environment	It includes school mates, friends, study and the student's relationship with them.

3.7 Limitation of the Study

This is a cross sectional study. The studied sample will be selected among students who are studying in Assumption University. Since, the sampled population will be from Assumption University, it does not represent the whole population of students in Thailand and the results of the study can not be generalized to the country and the students population.

3.8 Budget Allocation

It will be a (9) months project at a estimate cost of 100,000 Baht, divided as follow.

1. Data collection Stationary	~ 42,000 Bht.
2. Data Analysis Data entering expenses For Computer Expert Consultant	~ 5,000 Bht. ~ 10,000 Bht.
3. For Translation	~ 8,000 Bht.
4. Report Typing and Binding	~ 9,000 Bht.
5. Photo copy and Binding Copy	~ 5,000 Bht.
6. Transport Charges	~ 10,000 Bht.
7. Incidental Expenses	~ 5,000 Bht.
Total	**100,000**

3.9 Time-table for Survey Implementation

Activities	Duration (months)								
	1	2	3	4	5	6	7	8	9
1. Planning	▬								
2. Questionnaire (development)	▬								
3. Sampling Plan (development)	▬								
4. Arrangements with University		▬▬							
5. Administration of survey			▬▬						
6. Data Analysis				▬▬					
7. Report writing					▬▬				
8. Typing						▬			
9. Compiling final Report							▬		