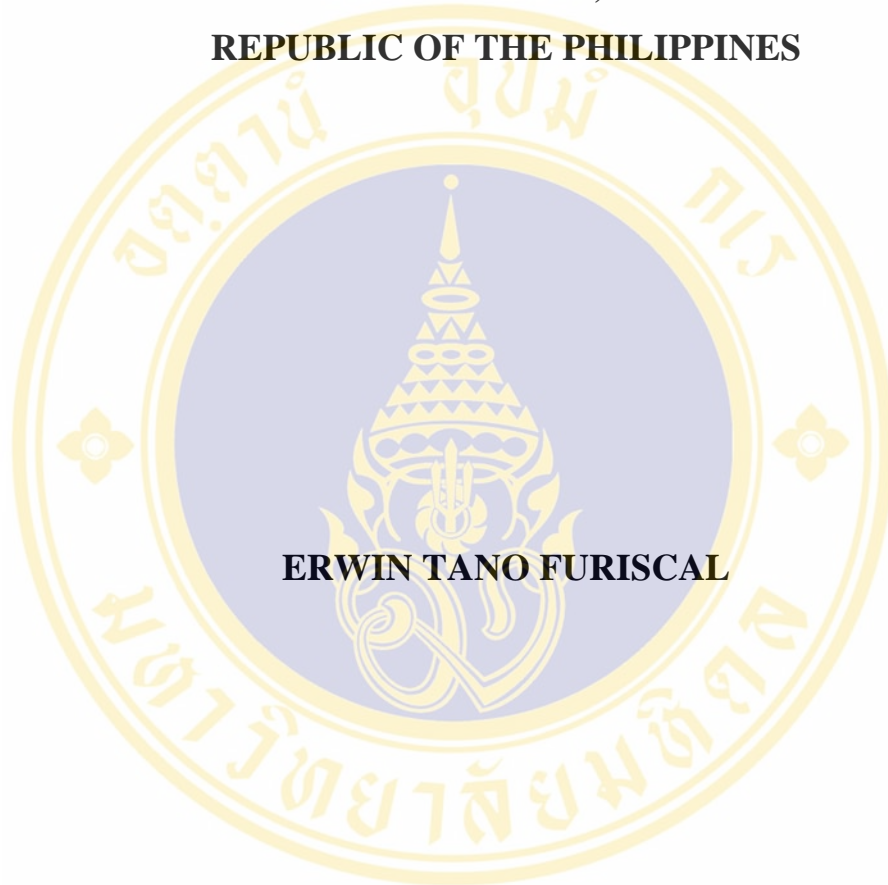


**ALCOHOL DRINKING BEHAVIOR AMONG ADOLESCENT
HIGH SCHOOL STUDENTS LIVING IN LOW-INCOME URBAN
COMMUNITIES IN BAGUIO CITY, BENGUET PROVINCE,
REPUBLIC OF THE PHILIPPINES**



ERWIN TANO FURISCAL

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF PRIMARY HEALTH CARE MANAGEMENT
FACULTY OF GRADUATE STUDIES
MAHIDOL UNIVERSITY**

2008

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Thesis
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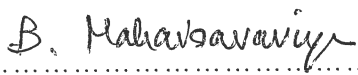
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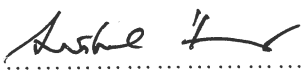

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ALCOHOL DRINKING BEHAVIOR AMONG ADOLESCENT HIGH SCHOOL STUDENTS IN BAGUIO CITY, PHILIPPINES

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ABSTRACT

According to the World Health Organization, alcohol drinking consequences has lead to disability and death during the younger years of life. Worldwide, 76.3 million people were diagnosed as potential alcohol abuse in 2005.

This was a cross-sectional survey to assess the alcohol drinking behavior and its related factors among 280 students in the 3rd and 4th year level from one public high school in Baguio, purposively selected during January, 2008. Data were analyzed using MINITAB. Chi-square test was used for testing association between dependent and independent variables with criteria for statistical significance of p-value ≤ 0.05 .

It was found that 74.3% of respondents were 15-16 years old. Students' alcohol drinking pattern indicated that 54.6% were non-drinkers and 30.8% were drinkers. About 63% of drinkers consumed > 1 bottle of alcohol per day. There were statistically significant associations between alcohol drinking behavior and attitude towards drinking ($x^2 = 9.8$; p-value <0.01), quantity of drink/day ($x^2 = 80.7$; p-value <0.0001), frequency of drinking ($x^2 = 149.5$; p-value <0.0001), affordability of liquor ($x^2 = 28.3$; p-value <0.0001) and parental influence ($x^2 = 30.6$; p-value <0.0001).

It was concluded that family influence, attitude towards drinking and affordability of liquor were contributing factors to students' increased drinking behavior. It was recommended that families, school and city officials should actively initiate activities against alcohol drinking among adolescents.

KEY WORDS: ALCOHOL DRINKING BEHAVIOR/ ADOLESCENT/
PHILIPPINES

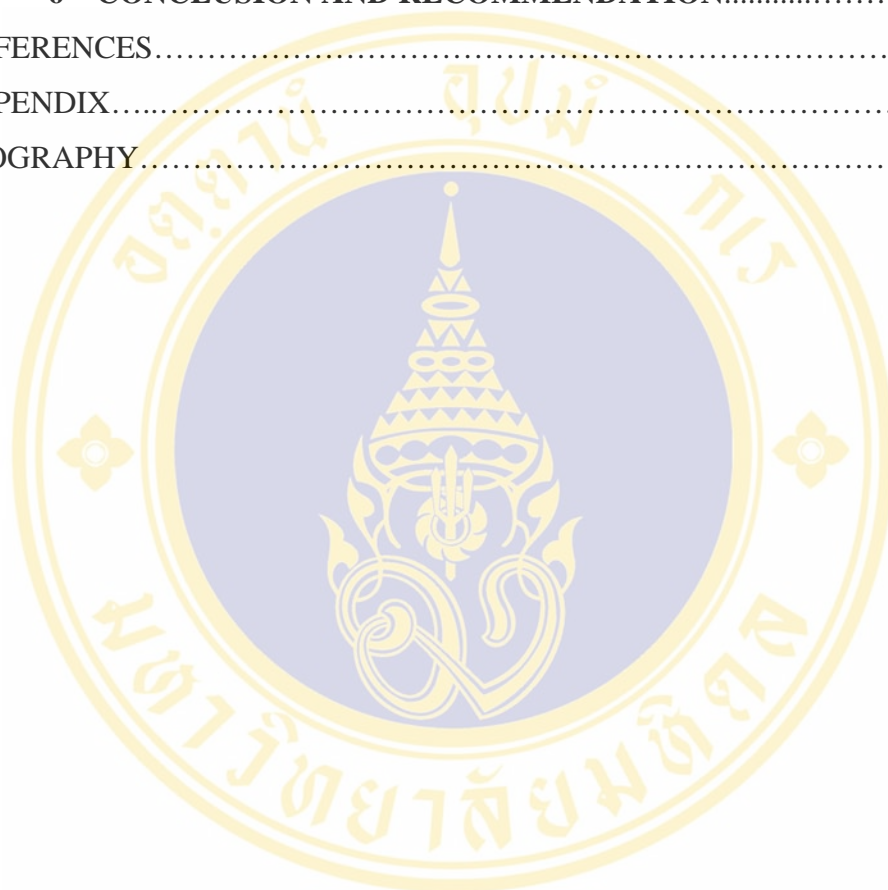
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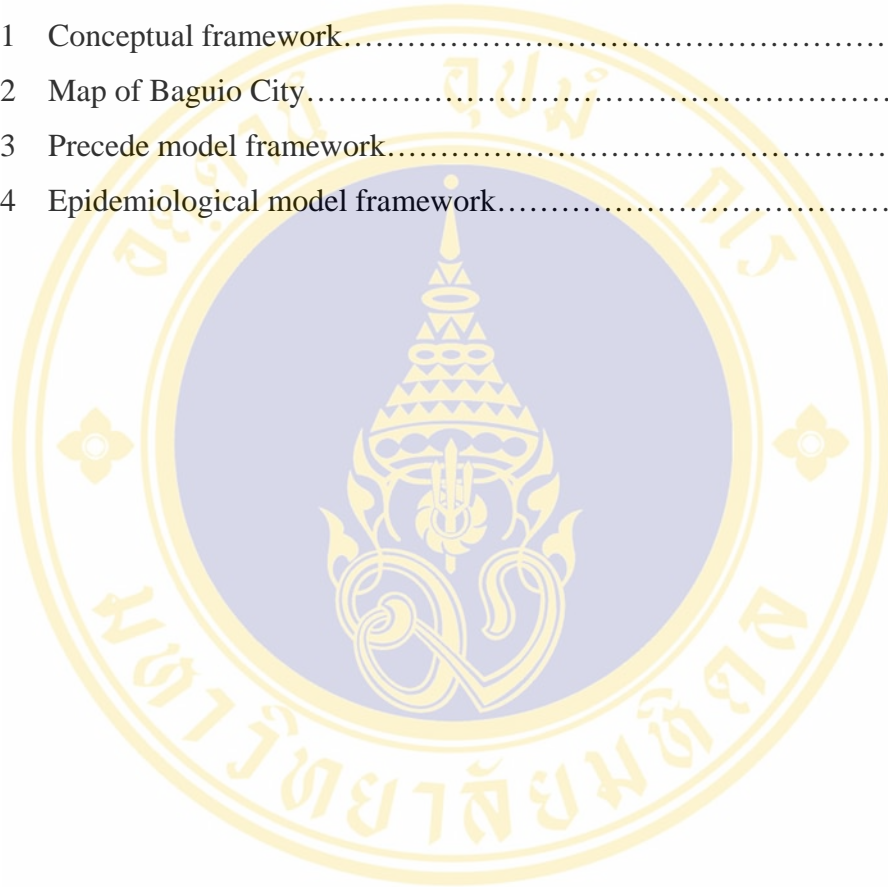


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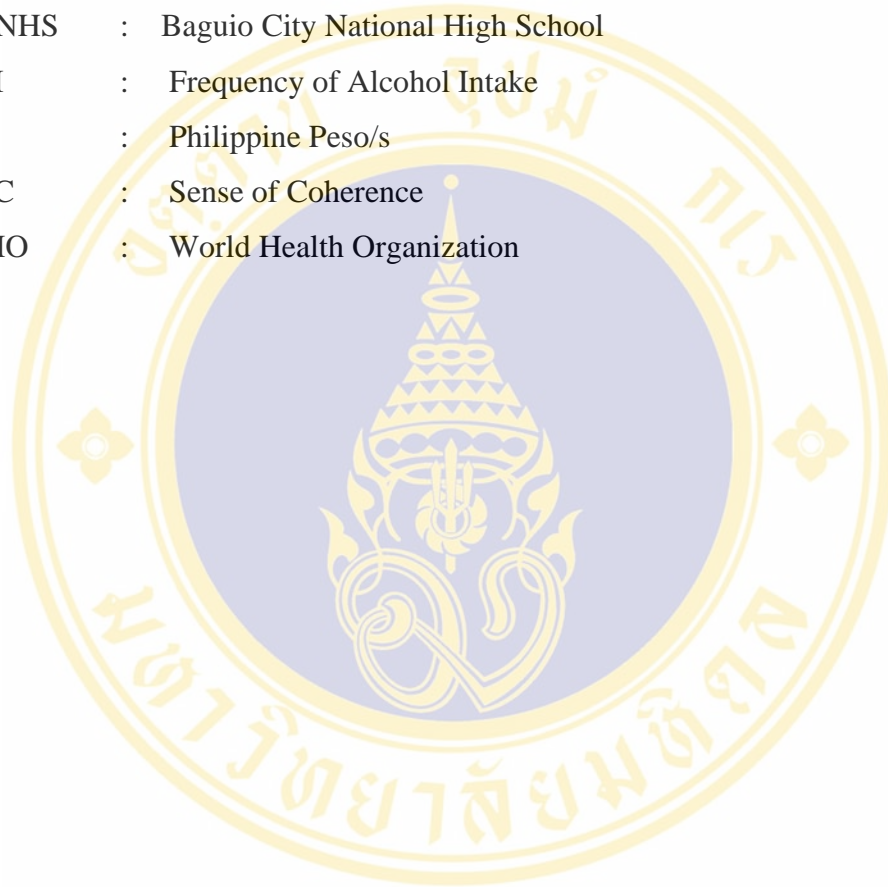
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LIST OF ABBREVIATIONS

ADB	:	Alcohol Drinking Behavior
BCNHS	:	Baguio City National High School
FAI	:	Frequency of Alcohol Intake
P	:	Philippine Peso/s
SOC	:	Sense of Coherence
WHO	:	World Health Organization



CHAPTER 1

INTRODUCTION

1.1 Rationale and justification

1.1.1 Global situation

According to the World Health Organization, the burden of disease from alcohol exceeds tobacco because harmful consequences lead to death and disability in the younger years of life (1).

While adverse health effect from long-term use of alcohol may not cause death or disability until later in life, immediate health effect of alcohol use, including accidents and injuries, are more common among younger people. Survey and data from countries around the world suggest that a culture of “binge” drinking among young people may be spreading from the developed to the developing countries.

Globally, efforts to promote varieties of alcohol drinking pattern have been increased over the past 30 years (2).

1.1.2 Alcohol drinking related issues

Alcohol drinking causes 1.8 million deaths (3.2% of total) and a loss of 58.3 million (4% of total) of Disability-Adjusted Life Years (DALY). Accidents alone account for about one third of the 1.8 million deaths, while neuro-psychiatric conditions account for close to 40% of the 58.3 million DALYs. In Europe alone, alcohol consumption was responsible for over 55,000 deaths among young people aged 15–29 years in 1999 (3).

1.1.3 Asian situation

In a nationwide survey of alcohol drinking behavior among Japanese adolescents, it indicated that nearly 60% of Japanese junior high school students and more than 70% of senior high school students had experienced drinking. Many of the junior high school students reported drinking once or twice per year, and more than 5% of them reported drinking more often than once a week. Among senior high school students, over 38% reported drinking more than once per month and about 10% more than once a week (4).

In a study about substance use among high school students in Southern Thailand covering the years 2002-2004, on alcohol drinking, in 2002, 38% of boys and 27% of girls admitted having drunk more than a few sips of alcohol sometime during their lifetime; the comparable figures for in 2003 were 42% and 27%, in 2004 were 39% and 22%. The proportions of students who admitted drinking an alcoholic beverage during the past 30 days tended to decrease in both boys and girls through 2003–2004. Among boys and girls, 8.9% and 1.8%, respectively claimed they had drunk alcohol on more than 10 of the previous 30 days. The rates of alcohol consumption in the past 30 days were 19.3%, 17.3% and 15.2% ($p > 0.05$) respectively (5).

1.1.4 Philippine situation

There was little data available on the issue of alcohol drinking in the Philippines. However, while there might not be official statistics available, the consequences of alcohol drinking were very obvious in the community or the families. There were many undocumented cases of people who became violent when they got drunk. Alcohol drinking is a growing concern in the culture and social life of this country. In recent years, only a few alcohol-related cases have been recorded by hospitals. This could be due to the fact that alcoholism was not considered a medical problem by most Filipinos. Most Filipinos with an alcohol problem were not admitted to medical treatment even if their condition was chronic. Alcohol rehabilitation

centers had low admission rates compared to similar institutions for treatment of other drug abuses. A few government hospitals provided alcohol support group centers which offer treatment and counseling for its patients. There were also some non-governmental organizations which provide similar services and carry out advocacy work. However, more effort is still needed in the Philippines in order to address the problems of alcohol drinking (6).

In a cross-sectional study about Adolescent Health in the Philippines on alcohol drinking in particular, the researcher presented the following facts about Filipino male and female youths shown in tables 1 and 2 respectively (7).

Table 1 Cross-sectional Prevalence Study in 2001 of 3,889 Youths (15-29)

Lifetime *Prevalence of Alcohol Drinking Among Filipino Youth

Gender	No. Interviewed	No. of Drinkers	Prevalence %
Male	1,473	1,009	68.5
Female	2,416	508	21.0
Total	3,889	1,517	39.0

*Had at least engaged alcohol drinking once in their life.

Social Weather Station Survey

Table 2 *Prevalence of Current Alcohol Drinking Among Filipino Youth

Gender	No. Interviewed	No. of Drinkers	Prevalence %
Male	1,009	869	86.1
Female	508	277	54.5
Total	1,517	1,146	75.4

*Had taken alcohol in the past 30 days of survey

Social Weather Station

Baguio City is located at the northernmost part of the country. The weather is usually cold especially during the months of November to February. It has become a

norm for the people of Baguio City especially the men, to drink alcohol beverages in order to keep their body temperature warm. Eventually, this unhealthy lifestyle practice of alcohol drinking also became a trend in schools among adolescent high school students.

1.1.5 Research questions

The research questions for this study were:

1. What was the alcohol drinking behavior among adolescent high school students?
2. What were the contributing factors associated with alcohol drinking among adolescent high school students living in low-income urban community?

1.2 Research objectives

1.2.1 General objectives.

To study the alcohol drinking behavior of adolescent high school students living in low-income urban communities of Baguio City, Philippines.

1.2.2 Specific objectives.

1. To describe the alcohol drinking behavior among adolescent high school students in this study;
2. To describe the following independent variables:
 - a. Socio-demographic factors namely personal profile, parent information, family economic status, place of stay and parents' relationship;
 - b. Predisposing factors namely knowledge about alcohol drinking and attitude towards alcohol drinking;
 - c. Enabling factors namely accessibility to alcohol products and average cost of alcohol products;
 - d. Reinforcing factors namely liquor advertisements, peer influence, family and neighbors' influence; and

3. To assess associations between alcohol drinking pattern among adolescent high school students with the following factors:

- a. Socio-demographic factors (e.g. age, gender);
- b. Predisposing factors (e.g. knowledge, attitude);
- c. Enabling factors (e.g. accessibility, average cost);
- d. Reinforcing factors (e.g. peer influence, family influence); and
- e. Alcohol drinking pattern (e.g. quantity of drink, frequency of drinking, age of initiation to drinking).

1.3 Study variables

1.3.1 Independent variables

Socio-demographic factors as follows:

- Age
- Gender
- Year level
- Parents' educational attainment
- Parents' occupation
- Monthly family income
- Monthly student allowance
- Place of stay
- Parents' relationship

Predisposing factors as follows:

- Knowledge about alcohol drinking
- Attitude towards alcohol drinking

Enabling factors as follows:

- Accessibility to liquor products
- Average cost of liquor products

Reinforcing factors:

- Liquor advertisements

- Peer influence
- Family and neighbors' influence

1.3.2 Dependent variable

In this study, the dependent variable was the alcohol drinking behavior of adolescent high school students which cover two items:

- Drinker
- Non-drinker



Independent variables

Dependent variable

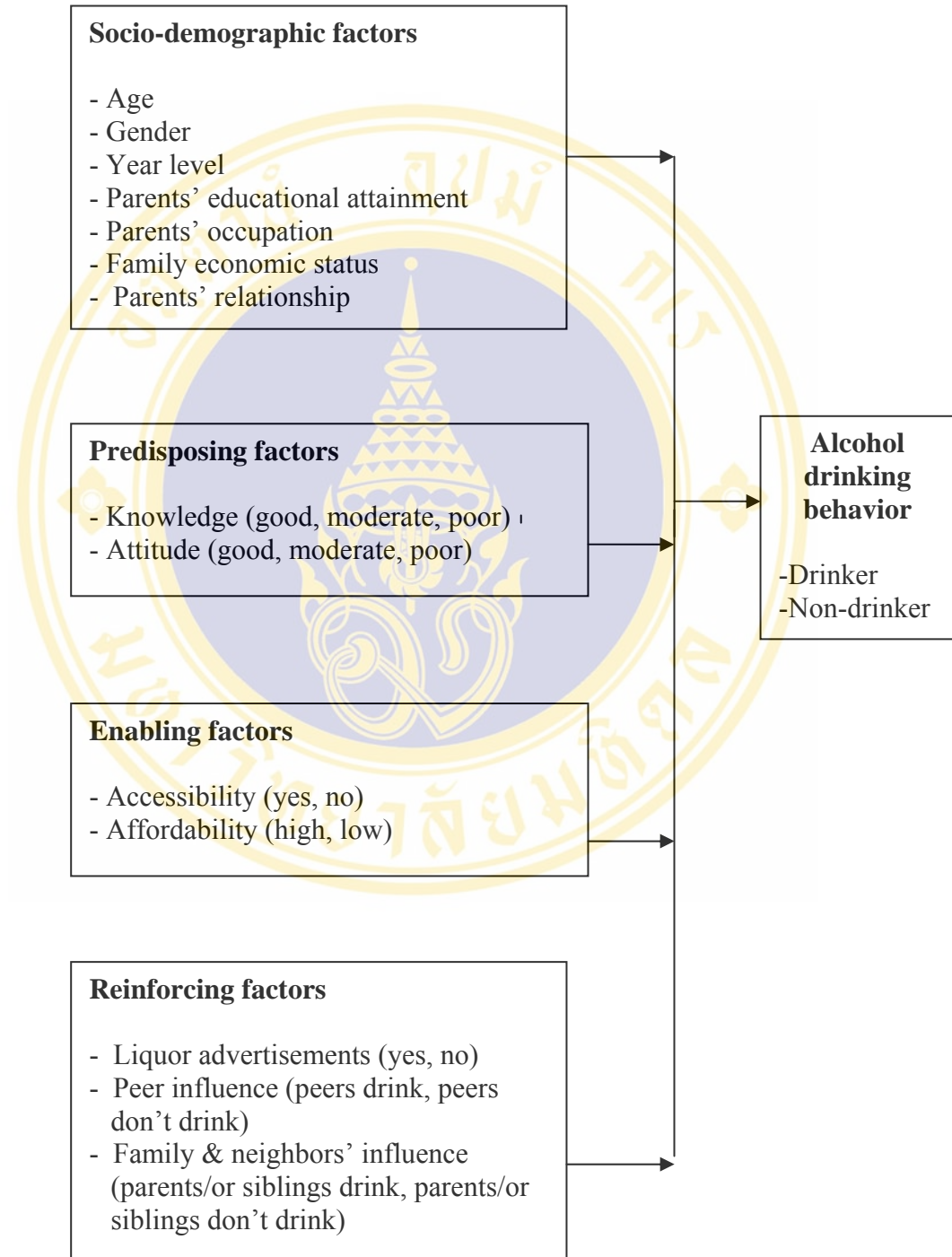
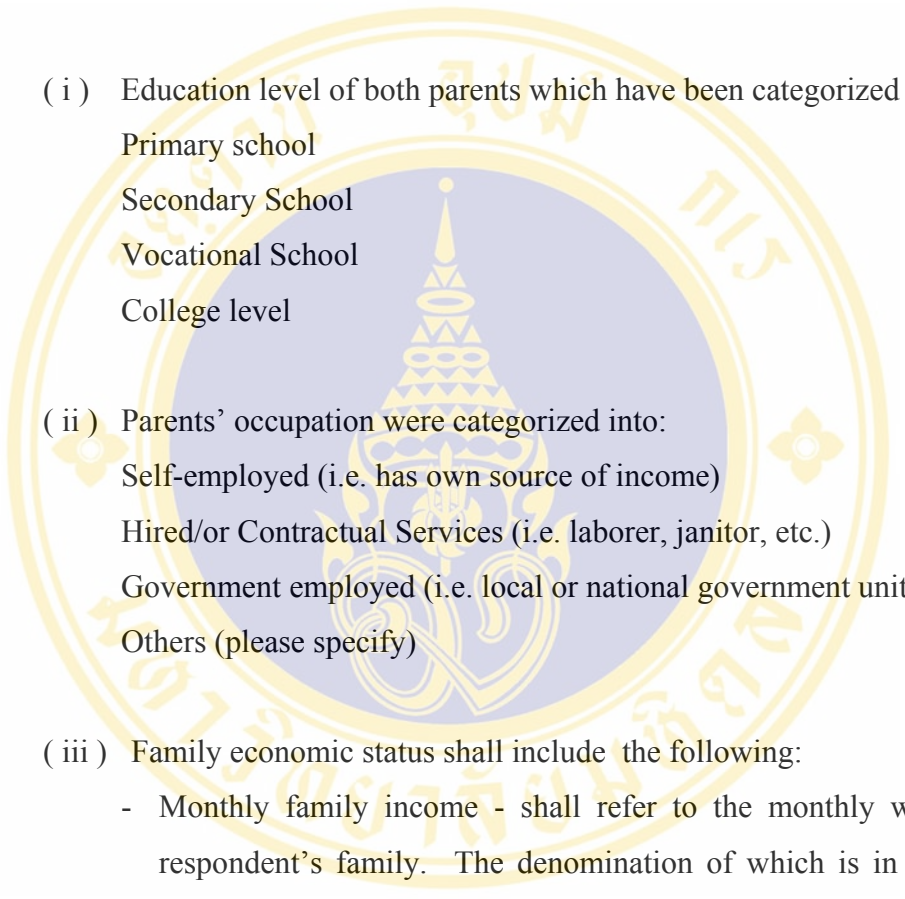


Figure 1 The Conceptual framework

1.4 Operational definitions

1.4.1 Socio-demographic factors

In this study, socio-demographic factors shall include the age and sex of the respondents together with the following independent variables:

- 
- (i) Education level of both parents which have been categorized into ;
 - Primary school
 - Secondary School
 - Vocational School
 - College level
 - (ii) Parents' occupation were categorized into:
 - Self-employed (i.e. has own source of income)
 - Hired/or Contractual Services (i.e. laborer, janitor, etc.)
 - Government employed (i.e. local or national government unit)
 - Others (please specify)
 - (iii) Family economic status shall include the following:
 - Monthly family income - shall refer to the monthly wage of the respondent's family. The denomination of which is in Philippines pesos or (P) as its monetary symbol;
 - Student's monthly allowance - shall refer to the amount the respondent receives as his/her stipend in school for a month's period. The denomination of which is in Philippines pesos or (P) as its monetary symbol;

1.4.2 Predisposing factors

- Knowledge- shall refer to how much the respondent knew about the effects of alcohol drinking;
- Attitude - shall refer to the respondent's viewpoint on alcohol drinking.

1.4.3 Enabling factors

- referred to the following variables:
- Accessibility- referred to the convenience of respondent to obtain liquor products whether yes/or no.
- Affordability - referred to the reasonable price to obtain liquor products whether yes/or no.

1.4.4 Reinforcing factors

This study focused on the reinforcing factors by restricting its meaning to the following:

- Liquor advertisements- influence/or effects of media advertisements (i.e. liquor advertisements) on the drinking behavior of the study group. This implies how pictures on advertisements, famous figures and names attached to liquor advertisements, warning labels on a liquor brands and the like which affects the drinking habits of the respondents;
- Peer influence – in this study, shall refer to friends of the respondent who drink/or who don't drink alcohol; and
- Family and neighbors' influence: In this study, it shall refer to parents, older siblings and neighbors who drink/or who don't drink alcohol.

1.4.5 Dependent variable

- Alcohol drinking behavior- referred to the behavioral characteristics of respondents related to alcohol drinking in terms of volume/or quantity of alcohol, frequency of drinking and age of initiation to drinking.

1.5 Limitation of the study

Because of the sensitivity of the research topic, the respondents were hesitant to participate in the study. However, when they were assured that it would be used for academic purposes only, the respondents agreed to participate.

There were many open-ended questions therefore some of the questionnaire responses obtained might be subject to recall bias.

1.6 Expected outcome

In this study, the researcher liked to gain a greater understanding of the alcohol drinking behavior among adolescent high school students living in low-income urban communities. Alcoholic beverages had rapidly become the substance of choice leading to substance abuse and consequently, addiction among Baguio City's youth, particularly the adolescent age group in low-income urban communities.

The researcher believed that it was an opportunity to look into a much neglected segment of the society, the low-income urban community and to focus on local community action in creating awareness on the effects of alcohol drinking.

The low-income urban population was one of the fastest growing marginalized sectors not only in Baguio City alone but also in the entire Philippines. They had varying socioeconomic characteristics, levels of acculturation, migration history, and health profiles. The urban poor population was extremely diverse; Alcohol drinking was one of the leading causes of social and health-related problems in this sector of the Filipino population.

1.7 Expectations from the study

The researcher's expectations from this research study were as follows:

1. To understand the knowledge, perception and lifestyle motivating factors among adolescents living in low-income urban communities in Baguio City; and

2. To learn about the group behavior towards alcohol drinking among adolescent high school students living in low-income urban communities.



CHAPTER 2

LITERATUR REVIEW

The World Health Organization (WHO) in its 2002 report estimated that there were widespread of alcohol consumption among 2 billion people worldwide with 76.3 million diagnosis of potential alcohol abuse.

In addition to chronic diseases that may affect drinkers after many years of heavy use, alcohol contributes to traumatic outcomes that kill or disable at a relatively young age, resulting in the loss of many years of life due to death or disability. There was increasing evidence that besides volume of alcohol, the pattern of the drinking is relevant for the health outcomes. Overall there was a causal relationship between alcohol consumption and more than 60 types of disease and injury. Alcohol was estimated to cause about 20–30% of esophageal cancer, liver cancer, cirrhosis of the liver, homicide, epileptic seizures, and motor vehicle accidents worldwide (8).

Drinking situation and trends among adolescents.

Adolescence was a period in which many young people begin to experiment with smoking or drinking. In the United States, despite a minimum legal drinking age of 21 years old, many young people consume alcohol. Some abused alcohol by drinking frequently or by binge drinking often defined as having five or more drinks. A standard drink was 12 grams of pure alcohol, which was equal to one 12-ounce bottle of beer or wine cooler, one 5-ounce glass of wine, or 1.5 ounces of 80-proof distilled spirits (9).

While drinking may be a singular problem behavior for some, research suggested that for others it may be an expression of general adolescent turmoil that includes other problem behaviors and that these behaviors were linked to

unconventionality, impulsiveness, and sensation seeking **(10 – 14)**.

Parents' drinking behavior and favorable attitudes about drinking had been positively associated with adolescents' initiating and continuing drinking **(15 – 16)**. Early initiation of drinking had been identified as an important risk factor for later alcohol-related problems **(17)**. Children who were warned about alcohol by their parents and children who reported being closer to their parents were less likely to start drinking **(18 – 19)**.

Lack of parental support, monitoring, and communication had been significantly related to frequency of drinking **(20)**, heavy drinking, and drunkenness among adolescents. Harsh, inconsistent discipline and hostility or rejection toward children had also been found to significantly predict adolescent drinking and alcohol-related problems **(21)**.

With regard to sibling influence, big brothers and sisters played a big role in whether their younger siblings smoke tobacco and drink alcohol. In fact, older siblings were more influential than parents or friends. It boiled down to behavior. If a big brother or sister drinks or smoked or drank, their younger sibling were more likely to had followed in their footsteps. “Tobacco and alcohol use were more likely among younger siblings who had older siblings engaged in these behaviors, compared to those whose siblings abstained,” the researcher wrote **(22)**.

Peer drinking and peer acceptance of drinking had been associated with adolescent drinking **(23 – 24)**. While both peer influences and parental influences were important, their relative impact on adolescent drinking was unclear.

Research on the effects of alcohol advertising on adolescent alcohol-related beliefs and behaviors had been limited **(25)**. While earlier studies measured the effects of exposure to advertising **(26)**, more recent research had assessed the effects of alcohol advertising awareness on intentions to drink.

In a study of junior high school students' awareness, awareness had a small but statistically significant relationship to positive expectancies about alcohol and to

intention to drink as adults. This suggested that alcohol advertising might had influence adolescents to be more favorably predisposed to drinking (27).

With regard to drinking and driving, of the nearly 8,000 drivers aged 15-20 involved in fatal crashes in 1995, 20 percent had blood alcohol concentrations above zero. (28 – 29).

This study was conducted in Baguio City. Baguio City, as shown in the map (Figure 2), is located 250 kilometers north of Manila, the country's capital. It has a land area of 22.2 square miles and is part of the province of Benguet. The province has 2 districts, wherein Baguio City is the first district while the rest of the province's towns comprised the 2nd district. The climate here averages 16 degree centigrade throughout the whole year, the city being 5,000 feet above sea level.

Baguio City National High School (BCNHS), Main Campus is strategically located within Baguio City's business and educational zones. As of December 31, 2007, BCNHS, Main Campus has a total population of 6,256 high school students from the first year level up to the fourth year level and it caters to both male and female enrollees. The third year level has 28 sections with a total of 1,585 students, while the fourth year level has 26 sections with a total of 1,391 students.

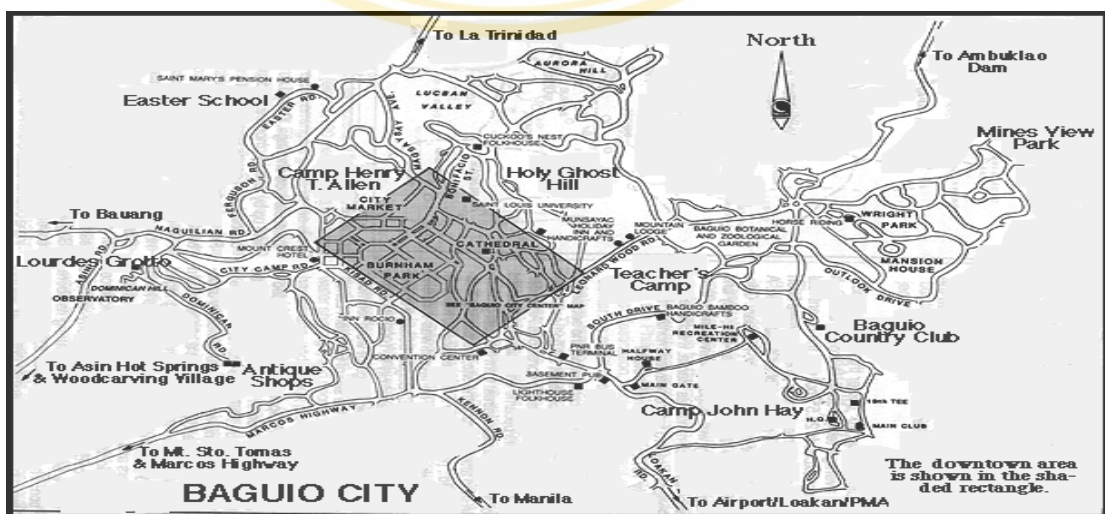


Figure 2 The Map of Baguio City

2.1 Theoretical models

2.1.1 PRECEDE Model

The PRECEDE model, developed by Green and Kreuter in 1974, was based on a theoretical foundation that addresses comprehensive assessment and program planning. It has been field tested in a variety of situations. There were five basic phases of the PRECEDE model and all were interrelated. Phase 1 was concerned with identifying social indicators, and subjectively defined problems and priorities of individuals and groups that factor into their quality of life. The goal of Phase 2 was to examine epidemiological data that was associated with the particular topic. Phase 3 identified behavioral characteristics that were linked to the health risks identified in Phase 2. Phase 4 consisted of identifying predisposing, enabling, and reinforcing factors that contributed to the targeted behavior. Phase 5 examined policies that can serve to reinforce the desired behavior change.

It was considered the appropriate theoretical model by most people in the health profession and had been the basic model for many professional projects. It had been received because by its nature, it was comprehensive and theoretically grounded.

The **predisposing** factors included knowledge, attitude and perception; these factors could facilitate or hinder a person's motivation to change and could be altered through direct communication.

The **enabling factors** were the barriers or vehicles created mainly by the society or system which included availability and accessibility of resources, referrals to appropriate providers, enactment of rules and regulation, and the development of skills.

In this study, the **Precede Model** of predisposing, enabling and reinforcing factors were applied in the conceptual framework, as it was deemed appropriate which would allow the researcher to study the association of these independent variables to the dependent variable which is alcohol drinking behavior of high school students.

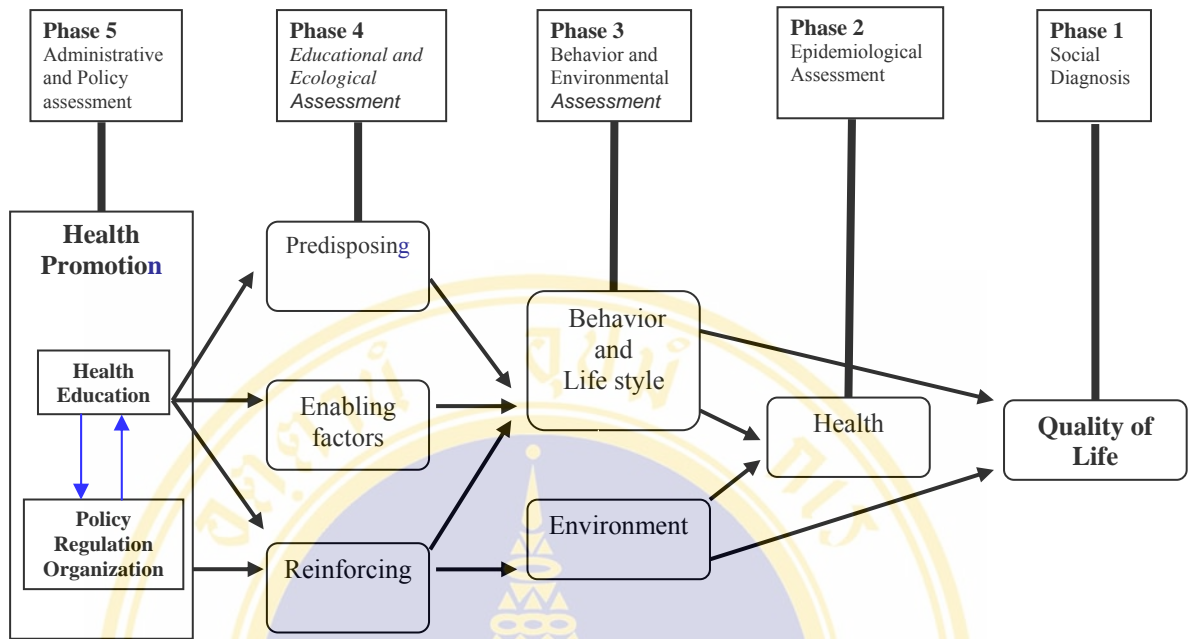


Figure 3 The PRECEDE Model framework

2.1.2 EPIDEMIOLOGICAL Model (multi-factorial nature of disease).

The epidemiological model was based on the doctrine of “what was happening to people”. J.M. Last defined epidemiology as the study of the distribution of health-related states or events in specified populations and the application of this study to control health problems. The target of study in epidemiology was a human population. The most common population used in epidemiology was that in a given area or country at a given time. This formed the base for defining subgroups with respect to gender, age group and so on.

The approach to health problems and diseases was based on two major foundations; asking questions and making comparisons. The questions that might be asked were those related to health events and health action which describes/or identified the problem at initial level in terms of **time**, **place** and **person** or answered the questions **what** was the event, **when** did it happen, **where** did it happen, **who** are affected, **why** did it happen and **how** can it be prevented in the future. Answers to these questions might provide clues to health problems and helped to guide in planning and evaluation.

The other major foundation was making comparisons in order to draw inferences. This might be comparison of two or more groups being exposed to the risk factors or had the outcome of interest and the other group not exposed to the risk factors or did not have the outcome of interest.

In this study, the components of time, place, person or the questions of what, when where, why and how were present among the variables that were studied thus, the researcher deemed it necessary to also adapt the **Epidemiological model** to the conceptual framework of this study.

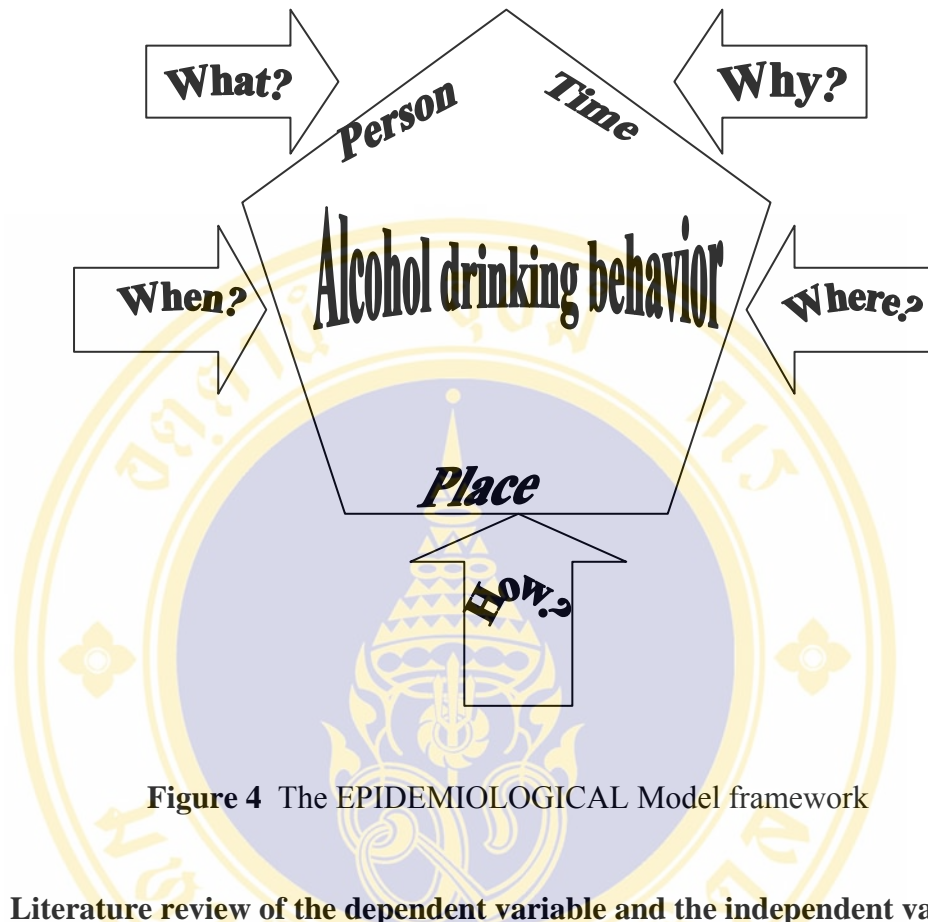


Figure 4 The EPIDEMIOLOGICAL Model framework

2.2 Literature review of the dependent variable and the independent variables.

According to a study on alcohol-related problems among adolescents and the role of a sense of coherence (SOC), alcohol abuse is generally regarded as a major risk factor for antisocial problem behaviour among adolescents. On the other hand, personal coping strategies hypothetically can be seen as protective of alcohol-related behaviour problems. It was found out that both an SOC and the frequency of alcohol intoxication (FAI) were independently associated with alcohol-related behavioral problems (30).

In a research study on the influences of parents' drinking problems on adolescents' drinking & motivations et al, results showed that children of parents with alcohol problems were found to drink more frequently, more heavily, and more often alone than children of parents without alcohol problems. Parental alcohol problems were also related to internal motives to drink (e.g. coping) in their adolescent children.

In addition, nearly one in five of the adolescents studied reported salient internal motives to drink that tended to coexist with their parents' alcohol drinking problems **(31)**.

In a study to test whether alcohol advertising expenditures and the degree of exposure to alcohol advertisements affect alcohol consumption by youth, findings revealed that youths who saw more alcohol advertisements on average, drank more with each additional advertisement seen increased the number of drinks consumed by 1% **(32)**.

In a study which was aimed to identify the prevalence of alcohol use among 12th grade students at Grant Union High School compared to that of high school students throughout the United States, findings revealed that alcohol use is common among students at Grant Union High School, with many of them being initially exposed to alcohol at an alarmingly young age **(33)**.

In a study to examine the associations between self-efficacy, parent involvement, school adjustment, and peer influence to smoking and drinking among Japanese early adolescent boys and girls, findings revealed that peer influence and less authoritative parenting were associated with smoking and drinking for boys, whereas self-control problems, low parental involvement and parents' smoking and drinking were associated with smoking and drinking for girls **(34)**.

In a study about binge drinking and associated health risk behaviors among high school students, it was found out that binge drinking was the most common pattern of alcohol consumption among high school youth who drink alcohol and was strongly associated with a wide range of other health risk behaviors. Effective intervention strategies (eg, enforcement of the minimum legal drinking age, screening and brief intervention, and increasing alcohol taxes) should be implemented to prevent underage alcohol consumption and adverse health and social consequences resulting from this behavior **(35)**.

In a study about the drinking dimensions and their effects on alcohol-related problems among Ontario secondary school students, results showed that average volume of alcohol consumption and patterns of drinking influenced alcohol-related problems among students were independent of each other. Future prevention of problems should consider average volume and patterns of drinking (36).

In a study by about high school students' attitude toward and alcohol use, the results were as follows: a) Positive peer and parental attitude toward alcohol correlates with positive attitude towards drinking and heightened alcohol use; b) males used alcohol more and exhibited more positive attitude towards drinking than females; c) higher grade level was associated with positive attitude towards drinking; d) no association existed between grade level and alcohol use; e) no association existed between knowledge of alcohol and attitude towards drinking and alcohol use; and f) association existed between attitude towards drinking & frequent alcohol use (37).

Some of the above-mentioned related studies were also presented in a matrix form for the reader's convenience and better understanding as shown in table 3.

Table 3 Related studies about alcohol drinking behavior among adolescents

Author & methodology	Independent variable/s	Dependent variable/s	Findings from the study
a) Nilsson, et. al; Cross-sectional study	Sense of coherence (SOC)	Frequency of alcohol intoxication (FAI)	SOC & FAI are independently associated w/ alcohol-related behavioral problems.
b) Chalder, et. al; Questionnaire survey measures	Adolescents' alcohol consumption & motivation to drink.	Influences of parents' alcohol problems.	Adolescents w/ alcoholic parents drink more frequently & heavily than adolescents w/ parents who are not drinkers.
c) Snyder, et. al; Longitudinal panel using phone surveys.	Alcohol advertising expense & degree of advertisements.	Youth alcohol consumption.	Youths who saw more alcohol advertisements on average, drank more alcoholic drinks.

Table 3 Related studies about alcohol drinking behavior among adolescents(cont.)

Author & methodology	Independent variable/s	Dependent variable/s	Findings from the study
d) Grant Union High School & Community Health Project Database; survey format.	Alcohol use among high school students throughout the United States.	Alcohol use among Grant Union High students.	Alcohol use was common among Grant Union High students. Many of whom were exposed at an alarmingly very young age.
e) Ando, et. al; pathway analyses	Self-efficacy, parent involvement, school adjustment & peer influence	Alcohol drinking among Japanese early adolescent boys and girls.	Peer influence & less authoritative parenting were associated w/ boys' smoking & drinking whereas, self-control problems, low parental involvement & parents' smoking & drinking were associated w/ girls' smoking & drinking.
f) Miller, et. al.;	Other health risk behaviors.	Binge drinking	Binge drinking was the pattern of alcohol consumption among high school youths & strongly associated with a variety of other health risk behaviors.
g) Pfingsten, et. al.;	Parental and peer attitude toward alcohol use, knowledge of alcohol, grade level & gender.	Students' attitude toward alcohol use.	a) Positive peer and parental attitude toward alcohol correlated with positive attitude towards drinking & heightened alcohol use; b) Males used alcohol more & exhibited more positive attitude towards drinking than females; c) Higher grade level was associated with positive attitude towards drinking; d) No association existed between grade level & alcohol use; e) No association existed between knowledge of alcohol & attitude towards drinking & alcohol use;

Table 3 Related studies about alcohol drinking behavior among adolescents (cont.)

Author & methodology	Independent variable/s	Dependent variable/s	Findings from the study
h) Rehmm, et. al;	Volume of alcohol consumption & patterns of alcohol drinking.	Alcohol-related problems of students.	<p>f) Association existed between attitude towards drinking & frequent alcohol use.</p> <p>Average volume of alcohol consumption & patterns of drinking influenced alcohol-related problems among students independently of each other.</p>

Summary of Literature review

In this study, the literature review started with some facts and figures about the global situation of alcohol drinking especially among young people based on the latest information from the World Health Organization (WHO) and that there was increasing evidence that other than the volume of alcohol, the pattern of the drinking was relevant for the health outcomes.

From the introductory statement, the review went on to discuss the theoretical models which the researcher had adapted for this study. The Precede Model was the basis of the researcher's conceptual framework because this theoretical model was based on a theoretical foundation that addresses comprehensive assessment and program planning. The Precede framework used the components of predisposing, reinforcing, and enabling factors which was suitable for use in describing and analyzing the independent variables in this study thus, it was adapted by the researcher.

The Epidemiological framework on the other hand, was based on the doctrine of "what was happening to people". The target of study in epidemiology is a human population which formed the base for defining subgroups with respect to gender, age group and so on. This model's approach to health problems was based on asking questions such as **what, when, where, why and how** which described the health problem in terms of **time, place and person**. The researcher deemed it appropriate to use some of the salient attributes of this model in describing and analyzing the dependent variable thus, it was also adapted to complete the conceptual framework for this study.

After the theoretical models were discussed, the researcher then went on to summarize the findings on related previous studies which he has obtained for his dependent variable and independent variables. A total of 37 references were included in this study.

CHAPTER 3

METHODOLOGY

For this research study, the researcher used the cross-sectional descriptive Study method to describe the alcohol drinking behavior of adolescent high school students living in low-income urban communities. The data were collected through a self administered questionnaire survey form with the written request for assistance and permission from the concerned school authorities.

3.2 Study Population

The target population in this study were third year and fourth year adolescent high school students in level at the Baguio City National High School who were living in low-income urban communities.

3.3 Sample size and sampling technique

The sample size of the students was determined by using the following statistical formula as shown below:

$$N = \frac{Z(PQ)}{d(d)}$$

Where:

N = was the estimated sample size

Z = was the z-score at 95% confidence interval level which is 1.96.

P = was the proportion in the population which possessed the characteristics of interest which was the alcohol drinking behavior. To the best knowledge of the researcher, there had never been any previous research study about this particular topic of interest in either Baguio City or Benguet Province thus, the researcher used P = 0.5 to gain a minimum sample size.

Q = 1-P (1- 0.5 = 0.5)

d = degree of accuracy desired setting at 0.05

Therefore, the sample size required for this study was 196 which was rounded off to the nearest hundred to become 200. However, to get more reliable results from this study especially when computing for the statistical analysis part, the researcher decided to increase the sample size by at least 50%, thereby increasing said sample size to be set more or less at **300**.

The sampling technique was a purposive sampling method. The researcher selected Baguio City National High School because it was the biggest public high school in the City of Baguio where most of the students come from low-income families. The researcher have intentionally selected third year and fourth year high school students, because it was in these groups that the alcohol drinking behavior pattern of adolescent high school students had its early influence.

Each year level had 3 science sections where the researcher randomly selected 50 male and female students from each section ($50 \times 3 \text{ sections} = 150 \times 2 \text{ year levels} = 300$) and thereby came up with the desired sample size.

3.4 Research instrument

A self-administered questionnaire survey form was used in this research study. It was conducted in the English language. Since the respondents' ability to comprehend the English language was relatively adequate, there was no need to translate the questionnaire to the Filipino language.

The questionnaire contained both open-ended and closed questions. The self-administered questionnaire was composed of five parts. The first part was about the socio-demographic characteristics of students like age, gender, parents' education and occupation, family economic status and family relationship. The second part dealt on the predisposing factors such as knowledge of the students about alcohol drinking and attitude towards alcohol drinking. The third part was about the enabling factors like accessibility in obtaining alcohol/or liquor products and price affordability of said products. The fourth part concentrated on the reinforcing factors such as liquor advertisements, peer influence, family and neighbors' influence. The fifth and last

part of the questionnaire was a description of the alcohol drinking pattern of the students.

3.5 Data collection procedure

Before data collection, the researcher conducted a pre-test of the self-administered questionnaire among 30 randomly selected third year and fourth year high school students at the BCNHS Roxas Annex. The purpose of conducting the pre test was to detect any unclear statement, misleading or highly sensitive questions in the research instrument. In doing so, the researcher was able to rectify such flaws to assure the validity and reliability of said questionnaire before it was distributed to the target respondents. Reliability of the questionnaire was tested by using KR 20 and Cronbach's Alpha for knowledge and attitude respectively. The results were as follows: **KR-20 = 0.60** (for knowledge) and **Cronbach's alpha -0.69** (for attitude).

3.6 Data analysis procedure and statistical analysis

The researcher conducted the data collection in Baguio City, Benguet Province, Philippines. The student respondents were purposively and randomly selected from among the 3rd year and 4th year level students. They were briefed on the purpose of this research study and were given assurance by the researcher through the help of their respective teacher-advisers that any information obtained from them will be held in strict confidentiality and that their identities shall remain anonymous. The data were analyzed by way of the MINITAB software as descriptive statistical analysis using frequency, percentage, minimum, maximum, mean, median, standard deviation and Chi-Square test for testing association between the dependent and independent variables. Criteria for statistical significance was set with p-value ≤ 0.05 .

3.7 Definition of variables (cut-off points)

1. Alcohol drinking behavior

- a. Drinker – the student drinks alcohol/or liquor;
- b. Non-drinker – the student does not drink alcohol/or liquor.

2. Age

- a. < 15 years old- student's age was below 15 years old;
- b. 15-16 years old – student's age was between 15-16 years old;
- c. > 16 years old – student's age was above 16 years old.

3. Gender

- a. Male – student was an adolescent male;
- b. Female - student was an adolescent female.

4. Level of knowledge – based on Benjamin Bloom scale.

- a. Good – student got $\geq 80\%$ of the total score in the knowledge questions;
- b. Moderate – student got 60% - 80% of the total score in the knowledge questions;
- c. Poor – student got $\leq 60\%$ of the total score in the knowledge questions.

5. Level of attitude- based on Likert scale.

- a. Good – student got $\geq 75\%$ of the total score in the attitude statements;
- b. Moderate - student got 26% - 74% of the total score in the attitude statements;
- c. Poor - student got $\leq 25\%$ of the total score in the attitude statements.

6. Accessibility

- a. Yes – student thought that it was easy to obtain liquor products from stores/or shops;
- b. No – student thought that is was difficult to obtain liquor products from stores/or shops.

7. Affordability of buying favorite liquor

- a. Yes – student believed that cost of buying favorite liquor was affordable;
- b. No – student believed that cost of buying favorite liquor was expensive.

8. Parental influence

- a. Drinker – parents of the student drink alcohol;
- b. Non-drinker – parents of the student do not drink alcohol.

9. Sibling influence

- a. Drinker – siblings (i.e. older brother/or sister) of student drink alcohol;
- b. Non-drinker – siblings of student do not drink alcohol.

10. Quantity of drink

- a. ≤ 1 bottle - student had taken less than 1 bottle of liquor a day;
- b. ≥ 1 bottle – student had taken more than 1 bottle of liquor a day;
- c. * (missing, don't drink) – student had never taken any bottle of liquor.

11. Frequency of drinking

- a. Once a week – student had engaged in drinking once a week;
- b. $>$ once a week – student had engaged in drinking more than once a week;
- c. * (missing, don't drink, etc.) – student had never engaged in drinking.

12. Age of initiation to drinking

- a. $<$ 15 years old- student started drinking below 15 years old;
- b. 15-16 years old – student started drinking between 15-16 years old;
- c. $>$ 16 years old – student started drinking above 16 years old.

CHAPTER 4

RESULTS

This study described the alcohol drinking behavior of adolescent high school students living in the low-income urban community of Baguio City, Benguet Province, Philippines. The results were presented in two parts as follows:

1. Descriptive statistical analysis
 - Socio-demographic factors;
 - Predisposing factors;
 - Enabling factors;
 - Reinforcing factors; and
 - Alcohol drinking pattern
2. Inferential statistical analysis- This was to assess the association between alcohol drinking behavior and:
 - Socio-demographic factors namely: age and gender;
 - Predisposing factors namely: knowledge and attitude ;
 - Enabling factors namely: accessibility and affordability;
 - Reinforcing factors namely: parental influence and sibling influence; and
 - Alcohol drinking pattern namely: quantity of drink, frequency of drinking and age of initiation to drinking.

The significant associations between the independent variables and dependent variable were analyzed by using Chi-Square test. Statistical significance was determined and interpreted based on the level of statistical significance set at $\alpha = 0.05$.

Part One: Descriptive Statistical Analysis

1. Socio-demographic factors

The socio-demographic factors were shown in table 4.

Table 4 Socio-demographic characteristics of students.

Factors	Frequency (N)	Percentage (%)
1. Age		
< 15 years old	37	13.2
15-16 years old	208	74.3
> 16 years old	35	12.5
2. Gender		
Male	121	43.2
Female	159	56.8
3. Year level		
3 rd year high school	138	49.3
4 th year high school	142	50.7
4. Father's Educational attainment		
Elementary school	20	7.3
High school	48	17.4
Vocational school	21	7.6
College level	186	67.6
5. Mother's Educational attainment		
Elementary school	9	3.2
High school	57	20.6
Vocational school	17	6.1
College level	194	70.0

Table 4 Socio-demographic characteristics of students (cont.)

Factors	Frequency (N)	Percentage (%)
6. Father's Occupation		
Self-employed	75	27.1
Hired/contractual labor	59	21.3
Govt. employee	56	20.2
Others (miner, tailor, taxi driver, etc.)	87	31.4
* (missing)	3	1.1
7. Mother's Occupation		
Self-employed	79	28.7
Hired/contractual labor	39	14.2
Govt. employee	32	11.6
Others (baker, housekeeper, cook, etc.)	125	45.4
(missing)	5	1.8
8. Monthly family Income		
< P10,000.00	27	12.3
> P10,000.00	41	18.7
Others (don't know, no idea, etc.)	151	69.0
(missing)	61	21.8
9. Monthly student allowance		
< P1,000.00	79	30.3
> P1,000.00	45	17.2
Others (don't know, have no idea, etc.)	137	52.5
(missing)	19	6.8

Table 4 Socio-demographic characteristics of students (cont.)

Factors	Frequency (N)	Percentage (%)
10. Living with whom?		
Parents		
Friend's house	239	85.4
Relatives (Aunt, uncle, cousins)	1	0.4
Others (Grandparents, older siblings)	29	10.6
	11	3.9
11. Parents' relationship		
Living together	226	80.7
Separated	54	19.3
Divorced	0	00.0

Students' ages ranged from < 15 years old to >16 years old. Those who were 15-16 years old comprised 74.3% (208) while those who were < 15 years old comprise 13.2 % (37) and those who were > 16 years old made up 12.5% (35) of the total sample size with the mean and standard deviation of 15.6 and 1.1 respectively. With regard to gender, female students comprised 56.8% (159) of the sample size while male students comprised of 43.2% (121) and for year level, 4th year high school students comprised 50.7% (142) of the total sample size while 3rd year high school students made up 49.3% (138) in this study.

For father's educational attainment, 67.6% (186) were holding college education, 17.4% (48) graduated from high school, 7.6% (21) graduated from vocational school and 7.3% (20) graduated from elementary school. For mother's educational attainment, 70.0% (194) have college education, 20.6% (57) graduated from high school, 6.1% (17) graduated from vocational school and 3.2% (9) graduated from elementary school.

For father's occupation, 31.4% (87) obtained various jobs, 27.1% (75) were self-employed, 21.3% (59) were hired/or contractual laborers while 20.2% (56) were government employees. For mother's occupation, 48.4% (125) of the respondents' mothers were employed in a variety of job positions, 28.7% (79) were self-employed, 14.2% (39) were hired/or contractual laborers while 11.6% (32) were government employees.

For monthly family income, 40.7% (114) of the students either didn't know or had no idea about how much their monthly family incomes were, while 32.9% (92) estimated their monthly family income to be < P10,000 and 26.4% (74) estimated their monthly family income to be > P10,000. With regard to monthly allowance, 62.9% (176) of the respondents estimated their monthly allowance to be < P1,000 while 29.3% (82) of the respondents estimated their monthly student's allowance at about > P1,000 and 7.9% (22) either didn't know or have no idea about how much their respective monthly allowances were.

For parents' relationship, 85.4% (239) of the students live with their parents, 10.6% (29) live with relatives, and 3.9% live with people others and 0.4% (1) live at a friend's house.

Lastly, for parents' relationship, 80.7% (226) of the students' parents were living together, 19.3% (54) of students' parents were separated and none of the students had parents who were divorced.

2. Predisposing factors

The predisposing factors are presented in tables 5-9.

Knowledge

Table 5 Students with good knowledge about alcohol drinking.

Statements	Frequency (N)	Percentage (%)
Drinking causes serious/acute illnesses.	275	98.21
Drinking while driving is a public disaster.	272	97.14
Drinking causes violence in the family.	271	96.79
Drinking can cause brain damage.	270	96.43
Intoxicating breath is a result of drinking.	265	94.64
Drinking can cause economic burden.	270	96.43
Drinking can cause liver cancer.	275	98.2
Ethanol is the addictive substance in alcohol.	272	97.1
Drinking results in dizziness and vomiting.	271	96.8

Table 5 showed that majority of the respondents had good knowledge on the consequences of alcohol drinking. Nine questions were asked to evaluate the students' level of knowledge about alcohol drinking. Based on the students responses, results revealed the following: 98.2% (275) knew that drinking caused serious/acute illnesses; 97.1% (272) believed that drinking while driving was a public disaster; 96.8% (271) knew that drinking could cause violence in the family; 96.4% (270) believed that drinking can cause brain damage and that it could cause economic burden to the family; 94.6% (265) knew that intoxicating breath was a result of alcohol drinking; 92.1% (258) affirmed that heavy drinking resulted in dizziness and vomiting; 84.6% (237) knew that ethanol was the addictive substance found in alcoholic drinks. However, only 63.21% (177) of the students knew that heavy drinking could cause liver cancer.

Cut off points on the level of knowledge about alcohol drinking

The level of knowledge on alcohol drinking was classified into good, moderate and poor based on Benjamin Bloom's criteria where good = $\geq 80\%$ of the total score; moderate = 60% - 80% of the total score and poor = $\leq 60\%$ of the total score as shown in table 6.

Table 6 Level of knowledge of students on alcohol drinking.

Level of Knowledge	Frequency	Percentage
Good knowledge ($\geq 80\%$ of total score); 8-9 scores	218	77.9
Moderate knowledge (60% - 80% of total score); 5-7 scores	57	20.4
Poor knowledge ($\leq 60\%$ of total score); 0-4 scores	5	1.8
Mean = 8.2; Median = 9.0; Mode = 8.3; S.D. = 1.2 Max = 9; Min = 0.		

Table 6 showed the following results: a small proportion of the students at 1.8% (5) had poor level of knowledge with maximum of 3 correct answers out of 9 possible correct answers. A high proportion of students at 77.9% (218) had good level of knowledge with minimum 8 correct answers and 20.4% (57) of students had moderate level of knowledge with 6-7 correct answers and 1.8% (5) had poor level of knowledge. The mean score of correct answers was 8.2 with a standard deviation of 1.2. The range of knowledge scores was from 0-9.

Attitude

Table 7 Students' attitude towards alcohol drinking

Statements about alcohol drinking	Strongly agree	Agree	Not sure	Dis-agree	Strongly disagree
	N (%)	N (%)	N (%)	N (%)	N (%)
Restores self confidence*	22 (7.9)	66 (23.6)	85 (30.7)	47 (16.9)	59 (21.2)
A way to escape problems*	13 (4.6)	50 (17.9)	46 (16.4)	66 (23.6)	105 (37.5)

Table 7 Students' attitude towards alcohol drinking (cont.)

Statements about alcohol drinking	Strongly agree	Agree	Not sure	Dis-agree	Strongly disagree
	N (%)	N (%)	N (%)	N %	N (%)
Highly toxic to the body	129 (46.1)	114 (40.7)	17 (6.1)	8 (2.9)	12 (4.3)
Students prone to addiction	97 (34.6)	123 (43.9)	46 (16.4)	12 (4.3)	2 (0.7)
Lose your self-control	97 (34.6)	125 (44.6)	44 (15.7)	9 (3.2)	5 (1.8)
Need to impose penalties	98 (35.0)	110 (39.3)	54 (19.3)	12 (4.3)	6 (2.1)
Due to friends' influence	57 (20.4)	115 (41.1)	66 (23.6)	16 (5.7)	26 (9.3)
Accepted where I live*	7 (2.5)	27 (9.6)	61 (21.8)	87 (31.1)	5 (1.8)
Accepted in my family*	5 (1.8)	22 (7.9)	36 (12.9)	62 (22.1)	155 (55.4)
Due to teenager's curiosity	60 (21.4)	129 (46.1)	54 (19.3)	17 (6.1)	20 (7.1)

Note:

Negative statements are marked with an asterisk (*);

N = frequency; and

% = percentage.

Table 7 showed the students' attitude towards alcohol drinking using Likert's 5-point scale. There were 10 statements; 6 were positive statements while 4 were negative statements. In Likert's scale, there were 5 options to measure the degree of agreement to the statement; strongly agree (5 points if the statement was positive and 1 point if the statement was negative), agree (4 points if the statement was positive and 2 points if the statement was negative), not sure (3 points whether statement was

positive or negative), disagree (2 points if the statement was negative and 4 points if the statement was positive) and strongly disagree (1 point if the statement was negative and 5 points if the statement was positive).

The results showed that 30.7% (85) of the total sample size were not sure if alcohol drinking restored self-confidence, 37.5% (105) strongly disagreed that alcohol drinking was a way to escape from problems, 46.7% (129) strongly agreed that alcohol drinking could be toxic to the body, 43.9% (123) agreed that young students could easily be addicted to alcohol drinking, 44.6% (125) also agreed that drinking alcohol made anyone to lose self-control, 39.3% (110) agreed that severe penalties should be given to those who were drunk and violent, 41.1% (115) agreed that drinking at an early age was due to friends' influence, while 31.1% (87) disagreed that drinking alcohol was acceptable to his/her community and 55.6% (155) strongly disagreed that alcohol drinking was acceptable to his/her family.

Attitude (cont.)

Table 8 Students' Predictability to drink liquor.

Statements	Frequency	Percentage
<u>Drinking liquor is:</u>		
A hard habit to break	138	49.3
A way to relax & have fun	75	26.8
A way to forget problems	49	17.5
Acceptable to high school students	18	6.4

Table 8 showed the students' predictability to drink alcohol. 49.3% (138) of the students thought that drinking alcohol was a bad habit, 26.8% (75) believed that drinking was just a way to relax and had fun, 17.5% (49) viewed drinking as a way to forget problems and about 6.43% (18) of the students thought that drinking was acceptable among high school students.

Cut off points on the level of attitude towards alcohol drinking

The level of attitude towards alcohol drinking was classified into good, moderate and poor as shown in table 9.

Table 9 Level of attitude towards alcohol drinking

Level of Attitude	Frequency	Percentage
Good attitude score ($\geq 75\%$ of total score); 34-45 scores	78	27.86
Moderate attitude score (26% - 74% of total score); 11-33 scores	129	46.07
Poor attitude score ($\leq 25\%$ of total score); 0-10 scores	73	26.07
Mean = 27.4; Median = 27; Mode= 27.3; SD = 4.8; Min. = 10; Max. = 45.		

Table 9 indicated the frequency and percentage distribution of students' level of attitude towards alcohol drinking. Findings showed that 46.1% (129) of the students had moderate attitude towards alcohol drinking who got 60% -80% of the total score, 27.9% (78) had good attitude who got $\geq 80\%$ of the total score and 26.1% (73) of the students had poor attitude towards alcohol drinking who got $\leq 60\%$ of the total score. The mean score of attitude was 27.4 with standard deviation of 4.8. The range of attitude scores were from 10-45.

3. Enabling factors

The enabling factors are presented in table 10.

Table 10 Students' points of view about accessibility to obtain liquor.

Statements	Frequency	Percentage
Distance of the liquor store is near from your house.		
Yes	171	61.07
No	103	36.76
Others (don't know, have no idea, etc.)	6	2.14

Table 10 Students' points of view about accessibility to obtain liquor (cont.)

Statements	Frequency	Percentage
Liquor store could always accommodate customers.		
Yes	175	62.50
No	91	32.50
Others (don't know, have no idea, etc.)	14	5.00
Liquor products were easy to obtain.		
Yes	138	49.26
No	142	50.71
Places where liquor products could be bought.		
Convenience stores near my house	55	19.64
Convenience stores near school	31	11.07
Bistro bar, sing-along bar, etc.	19	6.78
I don't buy liquor	163	58.21
Others (supermarkets, warehouse shops, etc.)	10	3.57
Average cost of liquor product.		
Yes (< P50.00)	34	12.14
No (> P50.00)	87	31.07
Others (don't know, have no idea, etc.)	159	56.79
Affordable price.		
Yes	86	30.71
No	194	69.29

Results from table 10 indicated that 61.1% (171) of the students believed that liquor stores or shops were very accessible in the place where they lived and 62.5% (175) knew that these stores were open at the customers' convenience anytime. 56.8% (159) of the students didn't know the average cost of liquor and 69.3% (194) believed that the cost of buying liquor was not affordable.

4. Reinforcing factors

The reinforcing factors were presented in table 11.

Liquor advertisements

Table 11 Students' points of view on liquor advertisements.

Statements	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
	N (%)	N (%)	N (%)	N %	N (%)
Advertisements influence drinking behavior.	86 (30.71)	143 (51.07)	34 (12.14)	14 (5.00)	3 (1.07)
Broadcast regulation helps.	51 (18.21)	101 (36.07)	101 (36.07)	18 (6.43)	9 (3.21)
Advertisements lead people to drink more.	73 (26.07)	124 (44.29)	69 (24.64)	12 (4.29)	2 (0.71)
Ban liquor advertisements.	58 (20.71)	78 (27.86)	99 (35.36)	37 (13.21)	8 (2.86)
Broadcast advertisements only after 10 p.m.	37 (13.21)	82 (29.29)	118 (42.14)	35 (12.50)	8 (2.86)
More laws must be passed.	99 (35.36)	115 (41.07)	53 (18.93)	9 (3.21)	4 (1.43)

Peer influence, family influence and neighbors' influence.

Table 12 Student's point of view on peer, family and neighbor's influence.

Statements	Frequency	Percentage
Friends drink alcohol.		
Yes	257	91.8
No	23	8.2
Biggest influence in drinking /or not drinking.		
Friends	164	58.8
People in your community	41	14.7
Parents who drink	24	8.6
Others (parents who don't drink, relatives, etc.)	50	17.9

Table 12 Student's point of view about peer, family and neighbor's influence (cont.)

Statements	Frequency	Percentage
Accepted by peer group even if you don't drink.		
Yes	209	
No	71	74.6
		25.4
Parents drink.		
Yes	176	
No	104	62.9
		37.1
Brothers and/or sisters drink?		
Yes	175	62.5
No	105	37.5
Neighbors drink?		
Yes	261	93.2
No	19	6.8
Happy to live with your family		
Yes	259	92.5
No	21	7.5
Happy to live in your community		
Yes	234	83.6
No	46	16.4

In table 11, all of the 6 statements were positive statements. There were 5 options to choose from; strongly agree (5 points), agree (4 points), not sure (3 points), disagree (2 points) and strongly disagreed (1 point). Results revealed that 51.07% of students agreed that liquor advertisements had a big influence in their alcohol drinking behavior, while 36.07% (101) of the students both agreed and were not sure

at the same time that regulating the broadcast of liquor advertisements helped reduce drinking among high school students. 44.29% (124) of students also agreed that the more liquor advertisements, the more alcohol drinking occurred in society but 35.36% (99) of students were not sure that liquor advertisements should be totally banned. 42.14% (118) were also not sure if broadcasting of these advertisements should be allowed after 10:00 p.m. only and 41.07% (115) of the students agreed that more laws were needed to be passed in the regulation of liquor advertisements.

In table 12, for peer influence, it indicated that 91.8% (257) of the students admitted that they had friends who drank alcohol, 58.8% (164) said that their friends had the biggest influence in their drinking (or not drinking). On the other hand, 74.6% (209) of the students believe that they would still be accepted by their peer group even if they didn't drink.

With regard to family and neighbors' influence, 62.9% (176) of students admitted that their parents drank alcohol, 62.5% (175) said that their brothers and/or sisters drank alcohol too and majority of students at 93.2% (261) confirmed that their neighbors also drank alcohol. However, 92.5% (259) of students said that they were happy living with their respective families and 83.6% (234) said that they were happy living in their respective community/or neighborhood.

5. Alcohol drinking pattern

The alcohol drinking pattern of students were presented in table 14.

Table 13 Alcohol drinking pattern of students

Alcohol drinking pattern	Frequency	Percentage
Drinking status		
Yes, I drink	86	30.82
Yes, but I quit now	40	14.34
No, I don't drink	153	54.64
* (missing)	1	0.36

Table 13 Alcohol drinking pattern of students (cont.)

Alcohol drinking pattern	Frequency	Percentage
Regularity of drinking		
Not everyday/occasional	126	45.0
Everyday/regular	1	0.36
* (don't drink, missing)	153	54.64
Preferred time for drinking		
On special occasions	80	28.6
With friends	10	3.6
With or without friends	29	10.4
Others (no idea, don't know, etc.)	8	2.9
* (missing, don't drink)	153	54.6
Quantity/or volume of drink per day		
1bottle	39	37.1
>1 bottle	66	62.9
* (missing, don't drink)	175	62.5
Money spent per week to buy liquor		
< P50.00	9	10.1
> P50.00	80	89.9
* (missing, no idea, don't drink, etc.)	191	68.2
Age of initiation		
<15 years old	80	63.0
>15 years old	47	37.0
* (missing, don't drink, etc.)	153	54.6
Frequency of drinking per week		
Once a week	65	58.6
> once a week	46	41.4
* (missing, don't drink, etc.)	169	60.4

Table 13 Students' alcohol drinking pattern (cont.)

Pattern of drinking behavior	Frequency	Percentage
Appetizer served with liquor		
Yes	113	89.0
No	14	11.0
* (missing, don't drink, etc.)	153	54.6
Other harmful substances taken with alcohol		
Cigarettes	59	46.8
Illegal drugs	0	0.0
Cigarettes & illegal drugs	36	28.6
Others (juice, soda, water, etc.)	31	24.6
* (missing, don't drink)	154	55.0
Reason for continuing to drink alcohol		
Friends make me drink	33	26.4
I see my parents drink	2	1.6
Make me feel matured enough	11	8.8
Relieves stress	34	27.2
It's my addicted habit now	8	6.4
Others (for good times, forget problems etc.)	37	29.6
* (missing, don't drink, etc.)	155	55.4
Preferred alcoholic beverage		
Beer	45	35.4
Hard drinks	25	19.7
Both beer & hard drinks	57	44.9
* (missing, don't drink, etc.)	153	54.6
Reason for preference		
It smells good	7	5.5
It's affordable	17	13.5
My friends drink it too	52	41.3
My parents drink it too	7	5.5
Others (to know the taste, keeps me warm, etc.)	43	34.1
*(missing, don't drink, etc.)	154	55.0

Table 13 Students' alcohol drinking pattern (cont.)

Pattern of drinking behavior	Frequency	Percentage
Drinker category		
Heavy drinker	8	6.4
Mild drinker	106	83.5
Neither of the two	13	10.2
* (missing, don't drink, etc.)	153	54.6
Drinking belief		
Feel good about yourself	39	15.5
Lose your self-control	102	40.6
Express your feelings	88	35.1
Become accepted by your peers	22	8.8
* (missing, have no idea, etc.)	29	10.4
Reason for never drinking		
Bad for one's health	29	22.8
Others (against religious beliefs, parents will be angry)	98	77.2
* (missing, don't drink, etc.)	153	54.6

Table 14 showed these striking points about the students' alcohol drinking pattern as follows:

- 54.6% were non-drinkers in this study;
- 30.8% were drinkers in this study;
- 45% of drinkers drank alcohol occasionally (i.e. not everyday);
- 28.6% of drinkers preferred to drink on special occasions only;
- 62.9% of drinkers drank more than 1 bottle of alcohol per day;
- 89.9% spent more than P50.00 per week to buy alcohol;
- 63% of drinkers were below 15 years old when they started to drink;
- 58.6% of drinkers said that they drink alcohol once a week;
- 89% of drinkers preferred to drink alcohol with appetizers or side dishes;
- 46.8% of drinkers smoked cigarettes while drinking alcohol;

- 27.2% of drinkers thought that drinking alcohol was a way to relieve stress;
- 44.9% of drinkers preferred to drink both beer and hard drinks;
- 41.3% of drinkers preferred both beer and hard drinks because these were also their friends' preference;
- 83.5% considered themselves as mild drinkers;
- 40.6% believed that drinking alcohol made them lose their self control; and
- 77.2% said that they never drank alcohol because, it was against their religious belief and that their parents don't want them to drink alcohol.

Part Two: Inferential Statistical Analysis

Table 14 Associations of independent variables and dependent variable

INDEPENDENT VARIABLES	ALCOHOL DRINKING BEHAVIOR		x ²	p- value	Total
	Drinker N =85 (%)	Non- drinker N= 195 (%)			
1. Socio-demographic factors					
Age			10.631	0.005	
< 15 years old	9 (24.32)	28 (75.68)			37
15-16 years old	58 (27.88)	150 (72.12)			208
> 16 years old	19 (54.29)	16 (45.71)			35
Gender			26.908	<0.001	
Male	57 (47.11)	64 (52.89)			121
Female	29 (18.24)	130 (81.76)			159

Table 14 Associations of independent variables and dependent variable (cont.)

INDEPENDENT VARIABLES	ALCOHOL DRINKING BEHAVIOR		x ²	p- value	Total
	Drinker N =85 (%)	Non- drinker N= 195 (%)			
2. Predisposing factors					
Knowledge			6.1	0.05	
Good (> 8 score)	63 (28.9)	155 (71.1)			218
Moderate (4-7 score)	18 (21.18)	39 (20.00)			57
Poor (< 3 score)	4 (4.70)	1 (0.05)			5
Attitude			9.8	0.01	
Good (≥ 75%)	16 (20.5)	62 (79.5)			78
Moderate (26%-74%)	47 (36.4)	82 (63.6)			129
Poor (≤ 25%)	51 (69.9)	22 (30.1)			73
3. Enabling factors					
Accessibility			25.7	<0.001	
a. Average cost of liquor					
Yes (< P50.00)	52 (23.3)	171 (76.7)			223
No (> P50.00)	33 (57.9)	24 (42.1)			57

Table 14 Associations of independent variables and dependent variable. (cont.)

INDEPENDENT VARIABLES	ALCOHOL DRINKING BEHAVIOR			p-value	Total
	Drinker	Non- drinker	x ²		
	N =85 (%)	N= 195 (%)			
Affordability			28.3	<0.001	
b. Affordable price					
High	40 (20.62)	154 (79.38)			194
Low	45 (52.32)	41 (47.67)			86
4. Reinforcing factors					
a. Parental influence			30.6	<0.001	
Parents drink	74 (87.06)	11 (12.94)			85
Parents don't drink	102 (52.31)	93 (47.69)			195
b. Sibling influence			19	<0.0001	
Siblings drink	54 (63.53)	31 (36.47)			85
Siblings don't drink	69 (35.38)	126 (64.62)			195
5. Alcohol drinking pattern					
a. Quantity of drink			80.7	<0.0001	
Unhealthy (≥ 1 bottle)	58 (68.24)	27 (31.76)			85
Healthy (≤ 1 bottle)	28 (14.36)	167 (85.64)			195

Table 14 Associations of independent variables and dependent variable. (cont.)

INDEPENDENT VARIABLES	ALCOHOL DRINKING BEHAVIOR			p-value	Total
	Drinker	Non- drinker	x ²		
	N =85 (%)	N= 195 (%)			
b. Frequency of drinking			149.5	<0.0001	
Unhealthy(\geq once/week)	86 (67.72)	41 (32.28)			127
Healthy(\leq 1 once/week)	0 (0.00)	153 (100.00)			153
c. Age of initiation			143.5	<0.0001	
< 15 years old	1 (0.65)	152 (99.35)			153
15-16 years old	13 (61.90)	8 (38.10)			21
> 16 years old	72 (67.92)	34 (32.08)			106

Mean = 15.561; Median = 16.000; Tr Mean = 15.504; S.D. = 1.049; Q1 = 15; Q3 =16

1. Socio-demographic factors

a. Association between drinking behavior and age

There was statistically significant association between drinking behavior and age as shown in table 15 with $x^2 = 10.631$ and p-value = 0.005. Among students who were non-drinkers, 75.68% were < 15 years old, 72.12% were between 15-16 years old and 45.71% were > 16 years old. On the other hand, among students who were drinkers, 24.32% were < 15 years old, 27.88% were between 15-16 years old and 54.29% were > 16 years old. The results showed that there were more non-drinkers within the age groups of < 15 years old and 15-16 years old. This positively indicated that a higher proportion of students within the age range of 16 years old in this study

were not engaged in alcohol drinking at this time. Majority of the students started their first drink at age older than 16 years old.

b. Association between drinking behavior and gender

There was also statistically significant association between drinking behavior and gender as shown in table 15 with $\chi^2 = 26.908$ and $p\text{-value} = 0.000$. Likewise, the results showed that among students who were non-drinkers, 52.9% were males and 81.8% were females. While for drinkers, 47.1% were males and 18.2% were females. It was an indication that males drank alcohol more than females and also, there were more female non-drinkers than male non-drinkers. This was also a positive indication that a higher proportion of male and female students in the study were not involved in alcohol drinking at this time. However, the gap between male drinkers and male non-drinkers were so close at 5.8%, it is possible that there is an increasing trend for male high school students to engage themselves into alcohol drinking later on.

2. Predisposing factors

a. Association between drinking behavior and level of knowledge

There was statistically significant association between drinking behavior and the student's level of knowledge on alcohol drinking as shown in table 15 with $\chi^2 = 6.1$ and $p\text{-value} = 0.05$. Among students who were non-drinkers, 71.10% had good level of knowledge on alcohol drinking and were less inclined to involve themselves in alcohol drinking as compared to the 28.9% of drinkers who had good knowledge on alcohol drinking but engaged themselves into drinking. Proportion of good knowledge level were predominantly in the non-drinker group. On the other hand, among students who were non-drinkers, 20% had moderate level of knowledge on alcohol drinking while among students who were drinkers, 21.18% had moderate level of knowledge. Only 0.05% of students who were non drinkers, had poor level of knowledge on alcohol drinking while 4.70% of students who were drinkers had poor level of knowledge on alcohol drinking. The trend here indicated that a higher level

of knowledge on alcohol drinking increases the chance of students not to drink alcohol.

b. Association between drinking behavior and level of attitude

There was statistically significant association between drinking behavior and the student's level of attitude towards alcohol drinking as shown in table 15 with $\chi^2 = 9.820$ and $p\text{-value} = 0.007$. This means that among students who were non-drinkers, 79.49% had good level of attitude towards alcohol drinking, while among students who were drinkers, only 20.51% had good level of attitude towards alcohol drinking. 63.56% among non-drinkers had moderate attitude while 36.43% among drinkers had moderate attitude. Among students who were non-drinkers, 69.86% had poor attitude towards alcohol drinking and 30.14% among drinkers also had poor attitude towards alcohol drinking. Proportion of good level of attitude was predominantly in the non-drinker group.

3. Enabling factors

a. Association between drinking behavior and cost of favorite liquor

There was statistically significant association between drinking behavior and cost of favorite drink as shown in table 15 with $\chi^2 = 25.671$ and $p\text{-value} = 0.000$. Among students who are non-drinkers, 76.68% believed that the cost of buying one's favorite liquor was high even if they did not drink. Among students who were drinkers, 23.32% thought that the cost of buying one's favorite liquor was high although they drank alcohol. On the other hand, among students who were non-drinkers, 42.11% believed that the cost of buying one's favorite liquor was low even if they did not drink. Among students who were drinkers, 57.89% thought that the cost of buying one's favorite liquor was low although they drank alcohol.

b. Association between drinking behavior and affordability of liquor.

The result showed statistically significant association between drinking behavior and price affordability of liquor as shown in table 15 with $x^2 = 28.335$ and $p\text{-value} = 0.000$. Among students who were non-drinkers, 79.38% thought that the price of buying one's favorite liquor was not affordable even if they did not drink alcohol. Among students who were drinkers, only 20.62% thought that the price was not affordable although they drank alcohol. On the other hand, among students who were non-drinkers, 47.67% believed that the price of buying one's favorite liquor was affordable even if they did not drink while 52.32% of drinkers thought that the price of buying one's favorite liquor was affordable.

4. Reinforcing factors**a. Association between drinking behavior and parental influence.**

There was statistically significant association between drinking behavior and parental influence as shown in table 15 with $x^2 = 30.620$ and $p\text{-value} = 0.000$. Among students who were non-drinkers, only 12.94% confirmed that their parents drink alcohol, whereas 87.06% of students who are drinkers confirmed that their parents drink alcohol. Therefore, it suggests that the student's drinking behavior may be influenced by what the student sees and/or learns from his/or her parents. On the other hand, 47.69% of students who are non-drinkers said that their parents don't drink while 52.31% of students who are drinkers said that their parents don't drink as well.

b. Association between drinking behavior and sibling influence.

There was also statistically significant association between drinking behavior and sibling influence as shown in table 15 with $x^2 = 19.037$ and $p\text{-value} = <0.0001$. Among students who are non-drinkers, 36.47% confirmed that their siblings drank alcohol, compared with 63.53% of students who were drinkers who said that their

siblings drank alcohol. Therefore, it suggests that the student's drinking behavior may also be influenced by what the student saw and/or learned from his/or her siblings. On the other hand, 64.62% of students who were non-drinkers said that their siblings did not drink while 35.38% of drinkers said that their siblings also did not drink alcohol.

5. Alcohol drinking pattern

a. Association between drinking behavior and quantity of drink

There was statistically significant association between drinking behavior and quantity of drink/day as shown in table 15 with $\chi^2 = 80.743$ and $p\text{-value} = <0.0001$. Results showed that among non-drinkers, only 31.76% said that they can never drink ≥ 1 bottle of liquor a day while 85.64% also said that they can never drink ≤ 1 bottle of liquor a day. On the other hand, among students who were drinkers, 68.24% said that they usually drink ≥ 1 bottle of liquor a day while 14.36% said that they usually drink ≤ 1 bottle of liquor a day. The results reflect a positive indication that majority of students in the sample size were inclined not to engage in consuming more than a bottle of liquor a day. However, more than 68.00% among drinkers were consuming at least 2 bottles of liquor a day and this could be a negative indication that these students may be prone to develop an unhealthy lifestyle later on.

b. Association between drinking behavior and frequency of drinking

There was also statistically significant association between drinking behavior and drink frequency/week as shown in table 15 with $\chi^2 = 149.535$ and $p\text{-value} = <0.0001$. Results showed that among non-drinkers, only 32.28% said that they can never see themselves drinking \geq once a week while 100.00% among non-drinkers said that they can never see themselves drinking \leq once a week, which means that there is no chance they will ever engage in alcohol drinking. On the other hand, among students who were drinkers, 67.72% said that they engage in drinking \geq once a week while none among the drinkers engage in drinking \leq once a week. The results

reflect a positive indication that majority of the students in the sample size do not engage themselves in drinking alcohol in terms of drinking on a weekly basis. However, 68% of drinkers frequently engaged in drinking at least twice a week which was a negative indication towards addiction.

a. Association between drinking behavior and age of initiation

There was also statistically significant association between drinking behavior and age of initiation as shown in table 15 with $\chi^2 = 143.537$ and $p\text{-value} = <0.0001$. Results showed that 99.4% were non-drinkers below the age of 15 years old who were never initiated into alcohol drinking as compared to only 0.6% of drinkers who were initiated to alcohol drinking. 61.9% of drinkers had been initiated to alcohol drinking between 15-16 years old as compared to 38.1% of non-drinkers who were never initiated to alcohol drinking. Almost 68% of drinkers were initiated to alcohol drinking over the age of 16 years old as compared to 32% of non-drinkers over the age of 16 years old who were never initiated to alcohol drinking. Proportion of students who were never initiated to alcohol drinking below 15 years old were predominantly in the non-drinker group. However, proportion of students who were initiated into alcohol drinking between 15-16 years old and over 16 years old were predominantly in the drinker group.

CHAPTER 5

DISCUSSION

The purpose of this study was to describe the alcohol drinking behavior of adolescent high school students. The findings were discussed as follows:

5.1 General characteristics of high school students

With regard to the personal profile of the students, majority of the students belonged to the standard age group for 3rd year and 4th year high school levels (15-16 years) respectively. About 13.21 % of students were below 15 years old which could be attributed to the possibility that some of the students were a year younger when they started at the primary school level or they were accelerated to the next higher year level by virtue of their extra-ordinary academic performance.

On the other hand, about 12.5% of the students were over 16 years old which could be attributed to the possibility that some of these students have to repeat at least a year or more than a year due to poor academic performance.

On gender, 56.8% of those who responded were female high school students while 43.2% were males which indicated that Filipino adolescent females were now becoming less inhibited about the issue of alcohol drinking.

With regard to year level, of those who responded, 49.3% were in the 3rd year level and 50.7% were in the 4th year level. At a glance, the figures would seem quite insignificant. However, it indicated that 3rd year high school students had caught up fast with their senior counterparts to be engaged in alcohol drinking as a “lifestyle trend”. If this trend continued, and became a norm among high school students, then the worst case scenario was that alcohol drinking might reach the lower year levels

like students in the 2nd year level or even those who were only 1st year high school students.

With regard to parents' educational attainment, majority of the students' parents had high educational attainment with 70.2% of mothers and 67.6% of fathers were able to go to college. This was quite expected of most Filipinos as it was embodied in the Filipino culture to give prime importance to the value of getting a college education as a matter of personal achievement, bringing pride to the family and for a better chance of finding good paying jobs later on.

For parents' occupation, about 48.4% of the students' mothers were employed in a variety of job positions while the same goes with fathers at 31.4%. However, when it came to monthly family income, 40.7% of the students either didn't know or had no idea about how much their monthly family incomes were. Almost 33% of students perceived their monthly family income to be \geq P10,000.00 and 26.4 % of the thought that their monthly family income was \leq P10,000.00.

On the other hand, when asked about their monthly allowance, almost 63% of the students estimated their monthly allowance between \leq P1,000.00 to P1,000.00. It was quite expected that students knew how much their monthly allowances were than their monthly family income because the issue of family incomes or monthly budgets were mostly confined to the knowledge of their parents.

When it came to parents' relationship, 85.4% of students said that they lived with their parents and 80.7% had parents who were living together as compared to only 19.3% whose parents were already separated. It was also quite typical for Filipinos to have strong family ties especially because in the Filipino culture, religion and constitution, divorce was not allowed although legal separation was allowed.

5.2 Alcohol drinking status of students

The prevalence of alcohol drinking among high school students as revealed in this study was 30.8% (i.e. those who are actively engaged in alcohol drinking) and the other 14.3% who used to drink but stopped/or quit. This figure was 9% lower compared to the lifetime prevalence rate at 39.00 % but even much lower compared to the 75.40% current prevalence rate of alcohol drinking among Filipino youths which was done in 2001 ().

5.3 Age of initiation to alcohol drinking

The average age range of initiation to alcohol drinking among high school students in this study is ≤ 15 -15 years old. The youngest age of initiation to alcohol drinking is at 8 years old while the oldest age is at 16. In a similar previous study conducted by Grant Union High School in Oregon, U.S.A. in 2004 (33), findings revealed that alcohol use is common among students at the 12th grade level, with many of them being initially exposed to alcohol at an alarmingly young age, although it was not mentioned exactly how young was the age of initiation to alcohol drinking in that particular study.

5.4 Reason/s why students continue to engage in alcohol drinking

Among those students who were actively engaged in alcohol drinking, 12.1% said that drinking alcohol was a way to relieve stress either at school and/or at home, while 11.79% revealed that they engaged in alcohol drinking because their friends made them or encouraged them to drink. On the other hand, about 3.9% of those who were actively engaged in drinking said that drinking alcohol made them feel that they were matured enough to engage in such activity while almost 3% revealed that alcohol drinking had become their addicted habit.

In previous references, it was mentioned that while drinking may be a singular problem behavior for some, research suggests that for others it may be an expression

of general adolescent turmoil that includes other problem behaviors and that these behaviors are linked to unconventionality, impulsiveness, and sensation seeking.

These behaviors were part and parcel of the so called “growing pains” of adolescent life. However, these behaviors also form part of the stressors in adolescents that when they needed to have an outlet to release their stress, that might be the time when adolescents resort to alcohol drinking because it became a lifestyle trend among their peer group that it was easy for them to rationalize that drinking alcohol was a convenient and a matured way of relieving stress or temporarily getting away from problems because others in their peer group also did it, until alcohol drinking became their addicted habit later on.

5.5 Factors contributing to the alcohol drinking behavior of students

A. Socio-demographic factors

1. Age and Alcohol drinking behavior

In this study, there was statistically significant association between age and alcohol drinking behavior ($\chi^2 = 10.631$ and $p\text{-value} = 0.005$). The result indicated that a higher proportion of students within the age range of 16 years old in this study were not engaged in alcohol drinking at this time which showed that majority of the students started their first drink at age older than 16 years old. This finding was different from the result of a previous study which was aimed to identify the prevalence of alcohol use of students in Gran Union High School. In that study, findings revealed that alcohol use was common among students in the United States with many of them being initially exposed to alcohol at a young age. (Community Health Clerkship Community Project Database, 2004).

2. Gender and Alcohol drinking behavior

There was also statistically significant association between gender and alcohol drinking behavior, it was found out in this study that it has also no association with the quantity of alcoholic drink ($\chi^2 = 26.91$ and $p\text{-value} = <0.0001$). The result in

this study indicated that males drank alcohol more than females and that there were more female non-drinkers than male non-drinkers. It also indicated that a higher proportion of male and female students were not involved in alcohol drinking at this time. This finding was similar to a previous study about parental and peer attitude toward alcohol use, knowledge of alcohol, grade level & gender. In that study, males use alcohol more and exhibit more positive attitude towards drinking than females (Pfungsten, et al., 1994).

B. Predisposing factors

1. Student's level of knowledge and Alcohol drinking behavior

In this study, there was statistically significant association between level of knowledge on alcohol drinking and alcohol drinking behavior ($\chi^2 = 6.1$ and $p\text{-value} = <0.0001$). The result indicated that proportion of good level of knowledge on alcohol drinking were predominantly in the non-drinker group. The trend here indicated that a higher level of knowledge on alcohol drinking increases the chance of students not to drink alcohol. The result in this study was different from the result of a previous study on parental and peer attitude toward alcohol use, knowledge of alcohol, grade level & gender. Results in that study indicated that no association existed between knowledge of alcohol and alcohol use (Pfungsten, et al., 1994).

2. Student's level of attitude and Alcohol drinking behavior

The result in this study revealed that there was statistically significant association between level of attitude and alcohol drinking behavior ($\chi^2 = 9.82$ and $p\text{-value} = 0.01$). The result indicated that proportion of good level of attitude towards alcohol drinking were also predominantly in the non-drinker group. The result in this study was different from the result of a previous study on parental and peer attitude toward alcohol use, knowledge of alcohol, grade level & gender. Results in that study indicated that no association existed between attitude towards alcohol and alcohol use (Pfungsten, et al., 1994).

C. Enabling factors

1. Association between drinking behavior and cost of favorite liquor

The result in this study revealed that there was statistically significant association between cost of favorite liquor and alcohol drinking behavior ($x^2 = 25.671$ and $p\text{-value} = <0.0001$). The result indicated that a high proportion of non-drinkers thought that the cost of buying a favorite liquor was high even though they didn't drink alcohol. The result in this study might not be similar to a previous study about binge drinking and associated health risk behaviors among high school students, however results from that study indicated that effective intervention strategies such as increasing alcohol taxes to prevent underage alcohol consumption was parallel to the cost of buying favorite liquor. (Miller, et al., 2003).

2. Affordability of favorite liquor and Alcohol drinking behavior

The result in this study revealed that there was statistically significant association between drinking behavior and affordability of favorite liquor ($x^2 = 28.335$ and $p\text{-value} = <0.0001$). The result indicated that a high proportion of non-drinkers thought that the price of favorite liquor was not affordable even though they didn't drink alcohol. As in the cost of favorite liquor, the result in this study might not be similar to a previous study about binge drinking and associated health risk behaviors among high school students, however results from that study indicated that effective intervention strategies such as increasing alcohol taxes to prevent underage alcohol consumption was also parallel to the affordability of buying favorite liquor. (Miller, et al., 2003).

D. Reinforcing factors

1. Parental influence and Alcohol drinking behavior

The result in this study revealed that there was statistically significant association between parental influence and alcohol drinking behavior ($x^2 = 30.62$ and $p\text{-value} = <0.0001$). This indicated that the student's alcohol drinking behavior could be influenced by what the student saw and/or learned from his/or her parents. This was similar to a previous study on the influences of parents' drinking problems on adolescents' drinking & motivations. Results showed that children of parents with alcohol problems were found to have drunk more frequently, more heavily, and more often alone than children of parents without alcohol problems (Chalder, et al., 2005)

2. Sibling influence and Alcohol drinking behavior

Similarly, with regard to sibling influence, the result in this study showed that there was statistically significant association between sibling influence and alcohol drinking behavior ($x^2 = 19.04$ and $p\text{-value} = <0.0001$). It indicated that the student's drinking behavior could be influenced by what the student saw and/or learned from his/or her siblings (i.e. older brothers and/or sisters). This was similar to a previous related study on sibling influence and substance abuse. Big brothers and sisters played a big role in whether their younger siblings smoked tobacco and drank alcohol. In fact, older siblings may be more influential than parents or friends (Hitti, 2006).

E. Alcohol drinking pattern

1. Quantity of drink and Alcohol drinking behavior

The result in this study revealed that there was statistically significant association between quantity of drink and alcohol drinking behavior ($x^2 = 80.743$ and $p\text{-value} = <0.0001$). The result reflected a positive indication that majority of students

in the study were inclined not to engage in consuming more than a bottle of liquor a day. However, more than 68.00% among drinkers were consuming at least 2 bottles of liquor a day and this could be a negative indication that these students may be prone to develop an unhealthy lifestyle later on. This study was parallel to a previous study on binge drinking. Results from the previous study indicated that many young people consume alcohol by drinking more. Binge drinking was defined as having five or more drinks in a row. A standard drink is 12 grams of pure alcohol, which is equal to one 12-ounce bottle of beer or wine cooler, one 5-ounce glass of wine, or 1.5 ounces of 80-proof distilled spirits (National Institute on Alcohol Abuse and Alcoholism, 1997).

2. Frequency of drinking and Alcohol drinking behavior

The result in this study revealed that there was statistically significant association between frequency of drinking and alcohol drinking behavior ($\chi^2 = 149.535$ and $p\text{-value} = <0.0001$). The results reflect a positive indication that majority of the students in the sample size do not engage themselves in drinking alcohol in terms of drinking on a weekly basis. However, 68% of drinkers frequently engaged in drinking at least twice a week which was a negative indication towards addiction. The result was parallel to a previous study on sense of coherence and frequency of alcohol intoxication. The result from the previous study indicated that the frequency of alcohol intoxication (FAI) were independently associated with alcohol-related behavioral problems (Nilsson, et al., 2007).

3. Age of initiation to drinking and Alcohol drinking behavior

The result in this study revealed that there was statistically significant association between frequency of drinking and alcohol drinking behavior ($\chi^2 = 143.5$ and $p\text{-value} = <0.0001$). The results positively indicated that proportion of students who were never initiated to alcohol drinking below 15 years old were predominantly in the non-drinker group. On the other hand, the results negatively indicated that

proportion of students who were initiated into alcohol drinking between 15-16 years old and over 16 years old were predominantly in the drinker group. The result was similar to a previous study on early initiation of drinking which had been identified as an important risk factor for later alcohol-related problems (Hawkins, et al., 1997). In another previous study on early initiation to drinking, children who were warned about alcohol drinking by their parents and children who reported being closer to their parents were less likely to start drinking (Andrews, et al., 1993- Ary, et al., 1993).



CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

A descriptive cross sectional study was conducted in the biggest public high school in Baguio City, Benguet Province, Philippines in order to study the alcohol drinking behavior of adolescent high school students living in low-income urban communities. A self-administered questionnaire survey form was used for data collection. The sample size included 280 adolescent male and female high school students who are both in the 3rd year and 4th year levels. Based on the findings of this study, the following conclusions were drawn:

The prevalence of alcohol drinking was 30.82% in this population and the average age range of initiation to alcohol drinking among high school students in this study is \leq 15-16 years old.

Two of the main reasons why these students engage in alcohol drinking was that alcohol drinking was a way to relieve stress either at school and/or at home and that their friends make them or encourage them to drink.

In terms of knowledge about the effects or hazards of alcohol drinking, 77.86% of the students demonstrated a relatively high level of knowledge about alcohol drinking. However, in the level of attitude towards alcohol drinking, it was surprising to find out that about 46.07% of students have a neutral level of attitude towards alcohol drinking despite their high level of knowledge about its hazards. This could suggest that these students are inclined to become irrational in making decisions whether to drink or not to drink, which is quite alarming because this means that they can develop a tendency towards addiction to alcohol drinking later in life when they become adults.

Based on the results of association between the dependent variable and independent variables of this study, the three biggest contributing factors for such behavior are family influence, attitude towards alcohol drinking and the affordability of the alcoholic products. It can be concluded that among the three contributing factors, it is the family which plays a key role in establishing and modifying the student's behavior pattern towards alcohol drinking.

It was mentioned earlier that students resort to drinking because it is a way to relieve stress either at school or at home and that their friends make them or encourage them to drink. It might suggest that resorting to alcohol drinking to relieve stress is an inclination towards developing an unhealthy lifestyle and at this stage in their young lives these students should not be encouraged to develop such an unhealthy lifestyle because this might prevent them from having a bright future ahead.

Peer influence or peer pressure in this study can be viewed as a barrier to change in the health behavior of students, therefore, parents should exert effort in becoming more involve with their children's lives especially in monitoring who they choose as their friends.

6.2 Recommendations

6.2.1 Family

The family as the basic unit of society plays a very important role in nurturing and molding the future of their children. Children learn much of their early behavior from their parents, grandparents, older siblings and older relatives. They emulate their actions, way of thinking, values, beliefs and other notable virtues (whether good or bad). Therefore it is recommended that:

- Parents or older family members should not drink in front of their children;
- Parents or older family members should not request their children to buy liquor for them;

- In every school, the Parents-Teachers Association (PTA) should make it a point to have a regular meeting to discuss issues related to topics such as how to prevent alcohol drinking among students or how to not let them get initiated at all into alcohol drinking;
- A healthy lifestyle program should be developed both within the family circle if possible and should also be integrated in the school's curriculum;

6.2.2 School

The school management should seriously consider the current school policy, rules and regulations about alcohol drinking or if they still don't have, it's about time that they make such policy and rules.

- School authorities should be discouraged to drink alcohol to set example as role models for their students;
- School authorities should not be seen drinking by their students even outside of the school premises;
- School authorities should be more vigilant of the alcohol drinking behavior of their students;
- School authorities should involve their students in anti-alcohol drinking campaign and should sponsor healthy lifestyle programs such as sportsfest, school team building and other recreational activities to break the monotony of school life to relieve stress.

6.2.3 Local government

The city government should coordinate regularly with high school authorities in combating the menace of alcohol drinking. The City Health Office should take the lead in this drive to build networks among high school institutions throughout the city and collaborate in drafting and formulating health education policies and programs on the hazardous effects and consequences of alcohol drinking.

These policies and programs should then be integrated in the school curriculum of every high school in the city. Ethanol dependence and addiction need

to be emphasized to discourage high school students to attempt or to initiate drinking alcohol/or liquor.

6.2.4 Legislation and enforcement of laws and/or ordinances

It is important to review the status of existing laws and city ordinances involving the sale of liquor products to minors (i.e. underage youths who are less than 18 years old). Regular monitoring and enforcement of these laws and ordinances by the law enforcement and monitoring authorities should be one of the key elements in preventing the sale of liquor products to minors.

6.2.5 Recommendation for further study

The researcher would like to recommend that an in-depth study on how the print and broadcast media make an impact on the alcohol drinking behavior of adolescents should be considered by succeeding MPH M batches.

The researcher believes that this particular study may be of useful importance in finding solutions in the future on the increasing trend of alcohol drinking among the youth as this issue is very much connected to primary health care management particularly in the area of healthy lifestyle living which leads to a better quality of life.

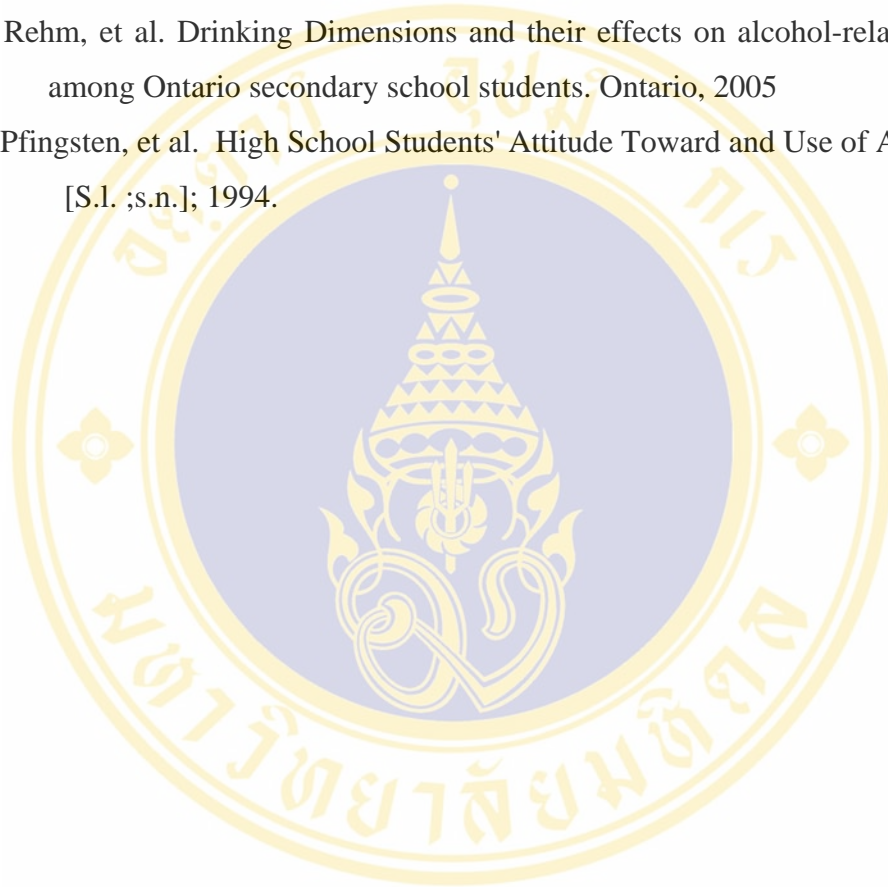
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APPENDIX A

QUESTIONNAIRE

ALCOHOL DRINKING BEHAVIOR AMONG HIGH SCHOOL STUDENTS IN LOW-INCOME URBAN COMMUNITY BAGUIO CITY, BENGUET PROVINCE, PHILIPPINES

I.D. No.

Instructions:

The purpose of this questionnaire is to gather essential information about alcohol drinking behavior among adolescents in low-income community that will be analyzed later. Please answer to the best of your ability in the space or box provided. Rest assured, all the information obtained from this questionnaire shall be treated confidential and the identity of each respondent will be kept in anonymity.

PART I: SOCIO-DEMOGRAPHIC FACTORS

(i) Personal Profile – (Age, gender)

1. How old are you? Years old.
2. When is your birth date? Month/ Day / Year = ___ / ___ / ___
2. What is your gender? Male Female
3. What year level are you in? 3rd Year 4th Year

(ii) Parent information (education, occupation)

4. What is the highest level of educational attainment of your father?

<input type="checkbox"/> 1. Elementary school	<input type="checkbox"/> 3. Vocational School
<input type="checkbox"/> 2. High school	<input type="checkbox"/> 4. College level
5. What is the highest level of educational attainment of your mother?

<input type="checkbox"/> 1. Elementary school	<input type="checkbox"/> 3. Vocational School
<input type="checkbox"/> 2. High school	<input type="checkbox"/> 4. College level

6. What is your father's Occupation?

1. Self-employed 2. Hired/contractual labor
 3. Government Employee 4. Others (specify)_____

7. What is your mother's Occupation?

1. Self-employed 2. Hired/contractual labor
 3. Government Employee 4. Others (specify)_____

(iii) Family economic status

8. Approximately, how much is your monthly family income? P_____

9. How much is your monthly allowance or pocket money? P_____

(iv) Place of stay

10. With whom do you live?

1. Parents 3. Relative (Aunt, uncle, cousins)
 2. Friend's house 4. Others (Specify)_____

11. Parents relationship

1. Living together 2. Separated
 3. Divorced

(v) Alcohol drinking pattern

12. Do you drink alcoholic beverages like beer, gin or hard drinks?

1. Yes, I do.
 2. Yes, but already quit now (go to all Questions as your past experience)
 3. No, I don't drink (continue to Question 25 and so on).

13. How often do you drink alcohol?

1. Not everyday (occasional)
 2. Everyday (regular)

25. Drinking liquor makes you

1. Feel good about yourself 2. Lose your self-control
 3. Express your feelings 4. Become accepted in your peer group

26. If you never drink, then why?

Please give your reason (s) _____

PART II: PREDISPOSING FACTORS

Knowledge

Give your answers true or false for each statement in the table.

	Statement	True	False
27.	Alcohol drinking can cause serious acute and chronic illnesses		
28.	Drinking liquor/ alcohol while driving is public disaster		
29.	Drinking liquor / alcohol can cause violent in the family		
30.	Drinking can cause brain damage		
31.	Intoxicating breath is an effect of alcohol drinking		
32.	Alcohol drinking can cause economic burden to family		

33. Heavy drinking causes the following diseases:

- a) Liver cancer b) lung cancer c) both d) none

34. The addictive substance found in alcoholic drinks is called:

- a) Ethanol b) nicotine c) both d) none

35. Heavy drinking results in:

- a) Dizziness & vomiting b) sharp memory c) both d) none

Attitude

Please tick your best answer about the following statements.

Statement		Strongly Agree	Agree	Not sure	Dis-agree	Strongly Dis-agree
36.	Alcohol drinking can restore one's self-confidence.					
37.	Alcohol drinking is a way to escape from problems.					
38.	Alcohol drinking can be highly toxic to human body.					
39.	Young students can easily be addicted to alcohol drinking.					
40.	Drinking alcohol can easily lose self-control					
41.	More severe penalties should be given to those who are drunk and violent.					
42.	Start drinking alcohol at an early age is due to friends' influence.					
43.	Drinking alcohol at an early age is acceptable in the community where I live.					
44.	Drinking alcohol at an early age is acceptable in my family.					
45.	Start drinking alcohol at an early age is due to teenager's own curiosity.					

46. Drinking liquor is

1. hard habit to break 2. a way to relax and have fun
 3. a way to forget problems 4. acceptable among high school students

PART III: ENABLING FACTORS

Accessibility and Availability of Liquor

47. Is the liquor store near the place where you live?

1. Yes. 2. No. 3. Other:-specify.....

48. Is the liquor store open most of the time for customers?

1. Yes. 2. No. 3. Other:-specify.....

49. Do you think that buying liquor is easy?

1. Yes (please give your reason)
 2. No (please give your reason)

50. Where do you usually buy liquor?

1. Convenience stores near my house 2. Convenience stores near school
3. Bistro bar, sing-along bar, etc. 4. I don't buy liquor.
5. Others (specify) _____

(Questions 51-52 are for those who drink or use to drink but quit now).

51. What is the average cost of your favorite type of liquor? P_____

52. Is the cost of buying a bottle of your favorite liquor brand affordable?

1. Yes 2.No

PART IV: REINFORCEMENT FACTORS

Advertisements

Give your best answer to the following statement with a tick.

	Statement	Strongly agree	Agree	Not Sure	Disagree	Strongly disagree
53.	Alcohol/liquor advertisements have a big influence in the drinking behavior of high school students					
54.	Regulating the broadcast of liquor advertisements will help reduce drinking among high school students.					
55.	The more alcohol/liquor advertisements the more alcohol drinking occur in society.					
56.	Alcohol/liquor advertisements should be totally banned.					
57.	Broadcasting of liquor advertisements should only be allowed after 10 P.M.					
58.	More laws are needed to be passed in the regulation of liquor advertisements.					

Peer pressures

59. Do you have friends who drink?

1. Yes 2.No

60. Whom do you think have the biggest influence in your drinking or not drinking?

1. Friends 2. People in your community
 3. Parents who drink 4. Others (specify) _____

61. Will you get acceptance in your peer group if you don't drink,?

1. Yes 2.No

Family and neighbors' influence

62. Does any of your parents drink?

1. Yes 2. No

63. Does any of your brothers/sisters drink?

1. Yes 2. No

64. Do your neighbors drink?

1. Yes 2.No

65. Are you happy living with your family?

1. Yes 2.No

66. Are you happy living in your community/or neighborhood?

1. Yes 2. No

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