CHAPTER I

INTRODUCTION

1.1 Background

Depressive disorders, causing a very high rate of diseases' burden, are expected to show a rising trend during the coming 20 years. It is a significant public health problem with relatively common, high prevalence and its recurrent nature profoundly disrupts patients' lives. General population surveys conducted in many parts of the world, including some South-East Asian Region countries, constituting 18 to 25% of the population in member countries region, in which, 15 to 20% children and adolescents suffered from it that are almost similar to that of adult populations (The World Health Organization [WHO]-Regional Office for South-East Asia, 2001). Inability to cope with intense emotions in healthy ways may lead adolescents to express their pain and frustration through violence or self-injury, or to attempt to numb themselves of emotions through isolation, reckless behaviors, and alcohol or illicit drug use. Furthermore, other behaviors and attitudes are also linked to adolescent mental health: aggressiveness and disregard for laws or the rights of others; isolation from peers, family, and other emotional relationships; or the inability to keep one's disappointments in perspective and academic stress.

Medical university is responsible for ensuring that graduates are knowledgeable, skillful, and professional (Liaison Committee on Medical Education [LCME], 2003). Since the field of medical knowledge is immense and particularly science in training programs for specialist medical undergraduate and its education is

characterized by many psychological changes in students. Many studies have explored high prevalence of psychological morbidity in medical students at different stage of their training (Aktekin et al., 2001). Unfortunately, some aspects of the training process have unintended negative consequences on students' personal health. It may, in fact, produce stress at levels which are hazardous to the physical and psychological wellbeing of students. Although a moderate degree of stress can promote student creativity and achievement, the intense pressures and relentless demands of medical education may impair students' behavior, diminish learning, destroy personal relationships, and ultimately, affect patient care. In addition, according to study of Marie Dahlin, Medical students are more distressed than the general population, especially in freshmen that face transitional nature of university life (Dahlin et al., 2005; Seyedfatemi et al., 2007)

In Vietnam, a national community-based study in 2005 of 5,584 young people aged 14-25 years found that a quarter report feeling so sad or helpless that they could no longer engage in their normal activities and they found it difficult to function (Ministry of Health [MOH]-Vietnam, 2005). Somehow, there is a few published evidence and concern to solve the burden of mental health problem. In medical university, it has also no study about stress, depression among students who will become future doctors with responsibility and capacity for caring health's community.

University of Medicine and Pharmacy at Hochiminh city, the biggest city of the South Vietnam, is the main university educating the health professions for the South region. This study wanted to explore what are the main sources of medical stress, screen the level of depression, and find their relationship between depression

and the main source of stress among the first year students by using the student stress survey tool and the Center for Epidemiologic Studies' Depression Scales tool. The finding would be a significant evidence to prevent mental disorder and improve the qualitative of education for this university as well.

1.2 Research questions

- What is the prevalence of depression among the first year Medical students?
- What are the sources of stress among the first year Medical students?
- Is there any relationship between sources of stress, potential consequence factors and depression among the first year Medical students in University of Medicine and Pharmacy, Hochiminh city, 2008?

1.3 Study hypotheses

- There is a relationship between depression and sources of stress (interpersonal, intrapersonal, academic and environmental sources).
- There is a relationship between depression and individual characteristics.
- There is a relationship between depression and potential personal consequences

1.4 Objectives

1.4.1 General objectives

The general objectives of this study are to measure the prevalence of depression; to determine the sources of stress; and the factors related to depression among the first students in University of Medicine and Pharmacy, Hochiminh city, 2008.

1.4.2 Specific objectives

- To assess the prevalence of depression among the first year Medical students by using the Center for Epidemiologic studies depression scale.
- To determine the sources of stress among the first year medical students.
- To find out the relationship between the main sources of stress, the individual characteristics, potential personal consequences and depression.

1.5 Variables in this study

Background variables (general characteristics)

- Gender
- Age
- Ethnicity
- Living status
- Perception of financial status
- Coping with problem

Independent variables

Potential personal consequences

- Parents' marital status
- Quality of relationship with parents and friends
- Leisure activity
- Exercise practice

Student stress

- Interpersonal factors

- Intrapersonal factors
- Academic factors
- Environment factors

Dependent variable

Depression

1.6 Operational definition

Depression: in this study, adolescent depression is a disorder occurring during the teenage years marked by persistent sadness, discouragement, loss of self-worth, and loss of interest in usual activities (Voorhees, 2007). The Center for Epidemiologic studies Depression scale (Radloff, 1991) will be used to measure depression

An overall CES-D score, the scores on the twenty above questions were combined. The minimum and maximum score are 0 and 60, range from 0 to 60. With cut – off point 22, the following classification is defined for depressions.

- Scores less than 22 = Non- depressive symptoms group
- Scores are 22 or more = Depressive symptoms group

CES-D emphasis on affective components: depressed mood, feelings of guilt, worthlessness, feelings of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disorders. CES-D question composed four factors:

- Depressed affect: blues, depressed, lonely, cry, sad
- Positive affect: good, hopeful, happy, enjoy
- Interpersonal affect: unfriendly, dislike
- Somatic and retarded activity: bothered, appetite, effort, sleep, going

The Student Stress was measured by students stress survey questionnaires. The questionnaire concludes 40 items divided 4 categories of potential sources of stress. Respondents will be provided a "Yes" or "No" answer to each item for experience students had during the academic year (since September, 2007 to February, 2008).

- Interpersonal sources: 6 items
- Intrapersonal sources: 16 items
- Academic sources: 8 items
- Environmental sources: 10 items

Age is a continuous variable

Gender is a nominal variable with female and male values.

Ethnicity is nominal variable with 5 values: Vietnamese, Hoa (Chinese), Khmer, Chăm and other.

Living status compose 4 nominal variables with following values:

- ***Hometown***: HoChiMinh and Non- HoChiMinh
- ***Living location***: Inner city and Suburban district
- ***Type of accommodation***: Dormitory, Rented room/house and Own home, Relative's home and others.
- ***Whom students lived with***: Alone, Friend, Relative, and Family

Perception of financial status is an ordinal variable about students' feeling on their financial status using Likert scale with values: not enough for tuition fee, not enough for living spending, nearly sufficient, sufficient, and comfortable.

Living spending referred for spending on shopping or for rent a good quality room/house, allowance, etc, excluding money for food.

Practice of religion is an ordinal variable about participation in religious services and activities as going to church or pagoda or fasting and following other religious regulations, by using Likert scale with values: rarely, sometime (≥ twice/year & < once/4 week), often (≥ one/4 week & < one/week) and always (≥ once/week).

Coping with problem is a nominal variable about the way student coping with problems including talking with parents, talking with friends, solving by yourself, praying, smoking/drinking, and others.

Potential personal consequences

Parents' marital status is a nominal variable about marital status of parents' students including live together, separated, divorce and parental loss.

Exercise practice is an ordinal variable about regularity in exercise practice using Likert scales as never, seldom (< 1 time/month), sometime (≥ 1 & ≤ 3 times/month), often (> 3 & < 12 times/month), and always (≥ 12 times/moth).

Leisure activity is a nominal variable about activities that students often do in their free time with values such as going out with friends, listening to music/reading book/watching TV/playing game, playing sport, sleeping, others.

Quality of relationship with friends and parents are an ordinal variable reflecting through satisfaction of students about their relationship with parents and friends by Likert scales: very satisfy, satisfy, not satisfy and not satisfy at all.

1.7 Conceptual framework

The outcome variable is prevalence of depression that related to general characteristics, potential personal consequences and student stress. General characteristics conclude age, gender, ethnicity, living status, practice of religion, perception of financial status and coping with problems. The potential personal consequences consist of parents' marital status, quality of relationship, and leisure/excise activity. These factors change differently and influence on prevalence depression in medical students.

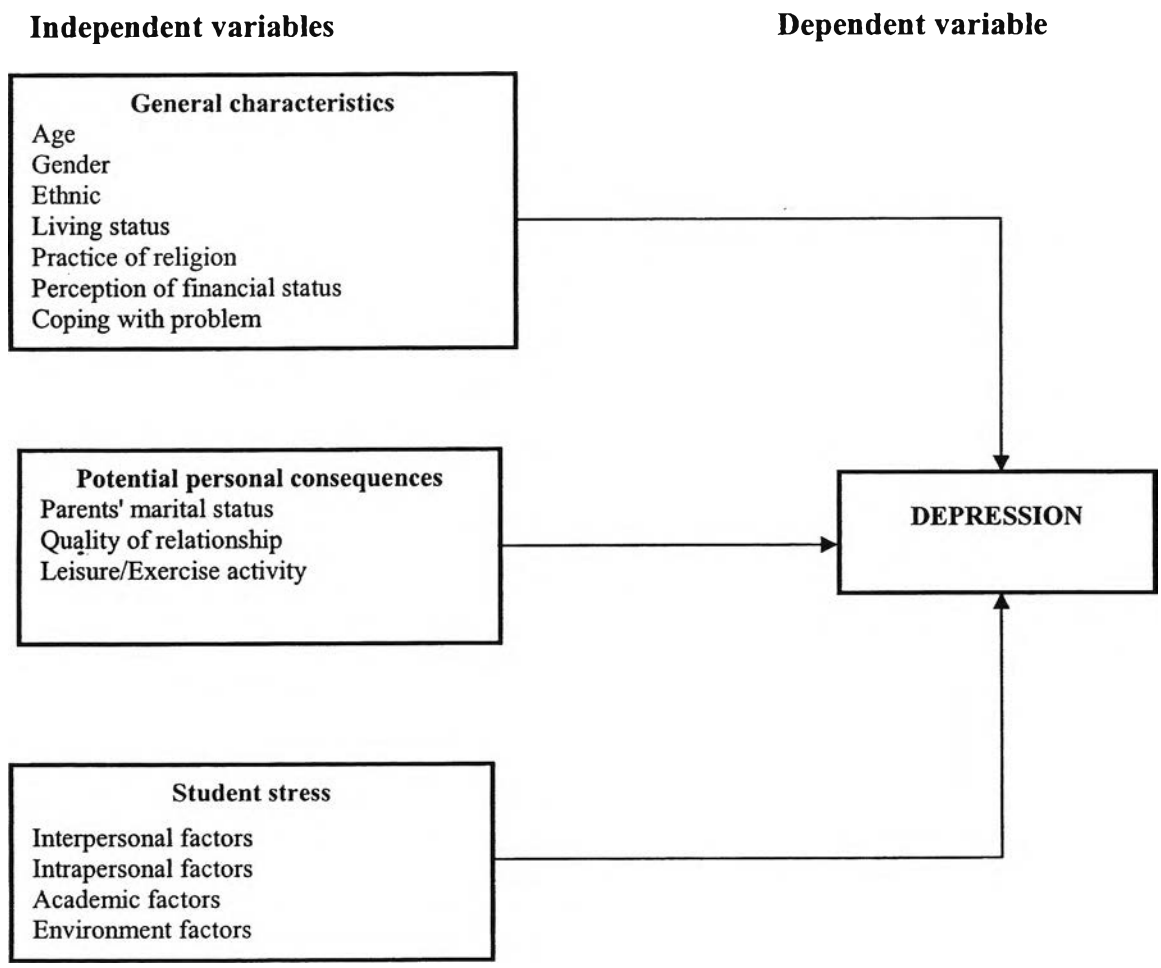

Figure 1: Conceptual framework