

**FACTORS INFLUENCING DEPRESSION AMONG EARLY
ADOLESCENTS IN EXTENDED EDUCATIONAL
OPPORTUNITY SCHOOL OF SAMUTSAKHON PROVINCE**



**A THESIS SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF SCIENCE
(CLINICAL PSYCHOLOGY)
FACULTY OF GRADUATE STUDIES
MAHIDOL UNIVERSITY
2009**

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entitled
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OPPORTUNITY SCHOOL OF SAMUTSAKHON PROVINCE**



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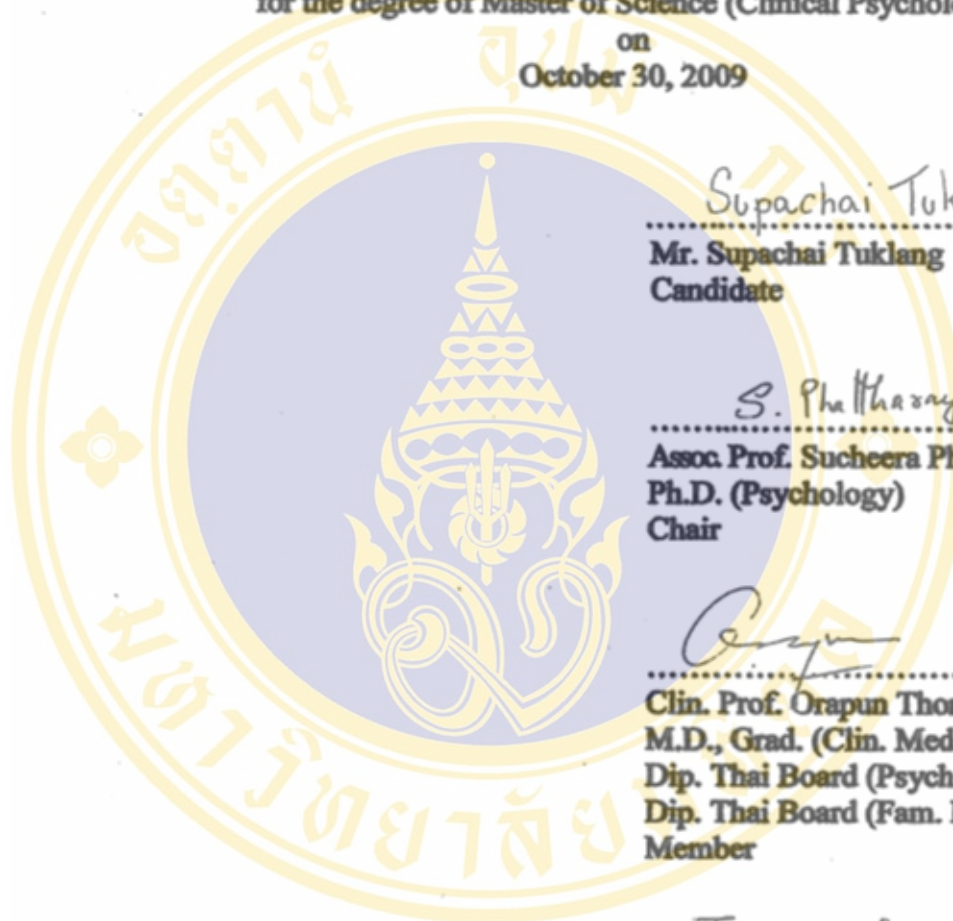
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ABSTRACT

The objective of this predictive correlational research was to study factors influencing depression among early adolescents in the extended educational opportunity school of Samutsakhon province. Subjects were 426 lower secondary level students in grades 7-9. Data collection was done by 4 instruments including a personal data form, the Child's Automatic Thought Scale (CATS), Personal Resource Questionnaire (PRQ2000), and Reynolds Adolescent Depression Scale (RADS).

The results from multiple regression analysis revealed that 2 measures, negative automatic thoughts and social support factors, accounted for 39.1 % of the variability in early adolescent depression ($p < .001$).

The results of this study showed that negative automatic thoughts and the lack of social support were the most important factors influencing early adolescent depression among students in the extended educational opportunity school. Therefore, decreasing negative automatic thoughts and increasing social support should be encouraged to enhance mental health among these early adolescents.

KEY WORDS : DEPRESSION/ NEGATIVE AUTOMATIC THOUGHTS/
SOCIAL SUPPORT/ ADOLESCENT

80 pages

ปัจจัยที่มีอิทธิพลต่อภาวะซึมเศร้าของนักเรียนวัยรุ่นตอนต้นในโรงเรียนขยายโอกาสทางการศึกษา
จังหวัดสมุทรสาคร

FACTORS INFLUENCING DEPRESSION AMONG EARLY ADOLESCENTS IN
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บทคัดย่อ

การวิจัยนี้เป็นการวิจัยแบบหาความสัมพันธ์เชิงทำนาย (predictive correlational research) มีวัตถุประสงค์เพื่อศึกษาปัจจัยที่มีอิทธิพลต่อภาวะซึมเศร้าของนักเรียนวัยรุ่นตอนต้นในโรงเรียนขยายโอกาสทางการศึกษา จังหวัดสมุทรสาคร โดยเก็บรวบรวมข้อมูลจากกลุ่มตัวอย่างซึ่งเป็นนักเรียนชั้นมัธยมศึกษาชั้นปีที่ 1-3 จำนวน 426 คน เครื่องมือที่ใช้ในการเก็บรวบรวมข้อมูลมี 4 ส่วน ประกอบด้วยแบบสอบถามข้อมูลส่วนบุคคล แบบวัดความคิดอัตโนมัติสำหรับเด็กอายุ 8-17 ปี (Child's Automatic Thought Scale : CATS) แบบสอบถามการสนับสนุนทางสังคมประเมินได้จากแบบสอบถามแหล่งสนับสนุนส่วนบุคคล (Personal Resource Questionnaire [PRQ2000]) และแบบทดสอบวัดภาวะซึมเศร้าในวัยรุ่น (Reynolds Adolescent Depression Scale [RADS])

ผลการวิจัยจากสถิติการถดถอยพหุคูณพบว่าปัจจัยด้านความคิดอัตโนมัติทางลบ และการสนับสนุนทางสังคม สามารถร่วมทำนายภาวะซึมเศร้าของกลุ่มตัวอย่างได้ร้อยละ 39.1 อย่างมีนัยสำคัญทางสถิติที่ระดับ .001

ผลการวิจัยครั้งนี้แสดงให้เห็นว่าการเกิดความคิดอัตโนมัติทางลบ และการสนับสนุนทางสังคมที่ไม่ดี เป็นปัจจัยสำคัญที่ทำนายภาวะซึมเศร้าของนักเรียนวัยรุ่นตอนต้นในโรงเรียนขยายโอกาสทางการศึกษา ดังนั้น การสามารถทำให้นักเรียนวัยรุ่นตอนต้นมีความคิดอัตโนมัติทางลบที่น้อยลง และมีการสนับสนุนทางสังคมที่ดีขึ้นจึงเป็นสิ่งจำเป็น เพื่อเป็นการส่งเสริมสุขภาพจิตที่ดีของวัยรุ่นกลุ่มนี้ต่อไป

80 หน้า

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CHAPTER I

INTRODUCTION

Background and significance of the study

Thai culture has been changing dramatically. Its present politics, economics, and social become much different from those of the past. Thai people are now under pressure arising from effects of the recent global economic downturn, which results in high cost of living together with social problems like drugs, crimes, etc. Moreover, the political conflicts of politicians and of activist groups also make Thai people worried about stability of the government and welfare of general people. These social conditions affect psychological conditions of Thai people as a whole. Those who cannot tolerate or adjust themselves to these problems are prone to mental disorders.

Depression is one of mental disorders found increasingly often in people of urban areas. The World Health Organization (WHO) has made a forecast that depression will rank second on illness of people all over the world, behind only ischemic heart disease, within next 10 years, and will become a highly important problem on public health for every country globally (1). Depression can lead to suicide, a major cause of death of world people in all ages, especially people aging between 15 to 24 years old whose third-ranked cause of death is suicide (2). Recently depression is found more in adolescents, and the number of people committing suicide due to depression increases even more every year. An international report revealed that 7% of people suffering from depression were adolescents, and 75 percents of suffering adults began their depression symptoms when they were adolescents (3). A study in Thailand found that ratios of Thai adolescents having depression and anxiety were 548 and 185 persons per 100,000 people respectively, and 5.77 persons per 100,000 people were found to have increasing inclination to commit suicide (4). Besides, depression may lead to other problems such as drugs, education problems, health problems, social problems, etc. (5), (6), (7), (8), (9). Therefore, depression is a

disease of great concern at the national level since it is often present in adolescents who are regarded as future of the nation, and much of the national budget and human resource has to spend for medical treatment and prevention of the disease.

The many factors causing depression can be categorized into 3 types. The first type is biological factors: for example, depression caused by fluctuating amount of some chemical substance in the brain (10), or by hereditary malfunctions of the brain (11). The second is mental factors. A theory widely accepted in explaining depression condition is the Cognitive theory, which believes that depression happen when one faces a serious crisis that could change the way of thinking, perceiving, and interpreting surrounding environment, people, and future events to be automatically negative (12). Kaesinee Songmuang (13) has studied negative automatic thoughts of early teenager students and found that 61.71 percents of them had a low level, 36.71 percents had a middle level, and 1.58 percents had a high level of negative automatic thoughts. It was also found that depression of the adolescents was relevant to negative automatic thoughts. The last type of factors affecting depression is social support. Supportive factors from the social can encourage individuals, enhance their dignity, teach skills to handle critical events, and increase their self-confidence, helping individuals to relieve depression and understand it (14). Another study found that social support positively correspond to living quality and self care of chronic disease patients (15). Supports from the social can help protect or reduce effects of terrible events or conditions in life, and produce lively conditions. It is believed that an individual who is well supported by the social can handle serious crises and abrupt changes in life properly. However, one who has little support from the social is more likely to develop depression (16), (17). Children who have relationship problems and being ignored from friends are particularly prone to depression and anxiety (18).

Due to the increasing number of adolescents having depression problems, causing difficulties to their study, family, social relationship, and so on, the researcher is interested in studying factors affecting depression in adolescents. Population of this study was adolescent students in extended educational opportunity schools, which are schools set up to enhance living quality of children in rural and remote areas. Currently, extended educational opportunity schools, which used to have only primary

education but now extended to lower secondary education, are quite different from, or inferior to, regular secondary schools. Many extended educational opportunity schools have insufficient number of teachers, and many of the teachers have to teach many subjects in secondary education level, while many of them do not have the required specific skills. Therefore, educational quality of these schools is considered lower than regular secondary schools. Many students in these schools have difficulties in attending full classes since they have to help tasks of their poor parents. In addition, these schools have to support students who failed the tests or were unlucky in drawing lottery for studying in regular secondary schools. Some students were from poor families who can't afford studying in private schools. Therefore, some students may be unsatisfied with their education in extended educational opportunity schools, which were considered a mere spare option. The conditions that conflict with expectation of children and their families may result in unhappiness and affect their psychological health. The research of Ratchana Singthong (19) has studied relationship of behaviors, problems, satisfactions, social support, and depression of students in the extended educational opportunity school of Muang District, Surat Thani Province. The study found that these students developed depression symptom for as many as 41.6 percents. Social support and depression were found to be significantly relevant at the significant level of .05.

This research chose to study adolescent students in the extended educational opportunity schools of Samutsakhon Province due to the fast-growing characteristics of the vicinity province, supporting expansion of Bangkok. Moreover, the city has to support labor markets comprising Thai and alien labors working in factories and fisheries. Samutsakhon's city area becomes crowded with diversity of population resulting in many problems such as pollutions, crimes, drugs, etc. Such those conditions may contribute to psychological health problems of students. This study aims to assess and understand depression status of adolescent students in the extended educational opportunity school in order to suggest solutions for preventing consequent problems.

The tool used in this study was made particularly for measuring negative automatic thoughts and depression of adolescents. Thus the tool was appropriate for the sampled students who studied in lower secondary education. Besides, the research

used additional tools for studying an environmental factor, social support, so that psychological conditions of the students can be understood and problems can be solved or prevented properly.

Objectives

1. To study depression, negative automatic thoughts, and social support of adolescent students in the extended educational opportunity schools.
2. To study factors influencing depression of adolescent students in the extended educational opportunity schools.

Outcome and benefit

Understand the status of depression, negative automatic thoughts, and social support. Besides, understand factors influencing depression of adolescent students in the extended educational opportunity schools that are useful for planning to prevent and monitor current and upcoming depression of adolescent students.

Hypothesis

Cognitive theory believes that depression is resulted from crises that people have confronted. The confrontation resulted in distorted thinking that leads people to automatically think negatively toward oneself and any present or future events. This may include negative thinking toward social support, which are an environmental factor that encourage people to handle problems, to be proud of oneself, to enhance ability in controlling oneself, and to increase self-confidence. Social support can also reduce depression and make people perceive and understand their stress. Lacking of social support may result in depression.

With the aforementioned information, a research hypothesis was set for the study that:

Factors regarding negative automatic thoughts and social support can be used to predict depression of adolescent students in extended educational opportunity schools.

Definition of terms

Depression refers to psychological conditions of sadness, worry, being depressed, sorrow, seeing things negatively, valuing oneself poor and inefficient, blaming oneself, and having relationship problems.

Negative automatic thought means sentences, phrases, or imaginations that arise in the brain abruptly, unintentionally, without attempts, without rational thinking, uncontrollably, and unknowingly. Negative automatic thoughts lead to 4 behavioral aspects namely physical threatening aspect, social threatening aspect, personal failure aspect, and unfriendly decision aspect.

Social support means having been loved by others, having intimacy or relationship with others, knowing that one is a part of social, having chances to help others, and perceiving value of oneself (self-esteem). Social support include helps from other people such as information, suggestion, encouragement, or material stuff that a person can use for solving problems and handling with stress in life.

Adolescent students refer to lower secondary education students.

Extended educational opportunity schools means public primary schools that also operate lower secondary education in Samutsakhon Province, under Samutsakhon Education Service Area Office.

CHAPTER II

LITERATURE REVIEW

This research studied factors influencing depression of adolescent students in the extended educational opportunity schools, the following related literature and research was used

1. Principles regarding extended educational opportunity schools
2. Ideas and theories regarding depression in adolescents
3. Factors influencing development of depression in adolescents
 - Factors concerning negative automatic thoughts
 - Factors concerning social support
 - Other factors
4. Conceptual Framework

Principles regarding extended educational opportunity schools

Office of the National Primary Education Commission (20) reports that during the year 1982 to 1987 statistics of students attending the first year of secondary education (Grade 7) was very low, especially in case of parents and students in rural areas. Responsible causes are as the following.

1. Students or their parents do not realize values or benefits of studying at the secondary education level.
2. Parents are economically poor. They can't afford expenses of their children in education, and prefer to have them help house work for more income of the family.
3. Transportations from children's houses to secondary schools are inconvenient.

The government foresees the importance of those problems and realizes that promoting higher fundamental education to people is essential and urgent to

prepare them to live under advanced technologies and to be able to help the country's development. Therefore, the Office of the National Primary Education Commission (20) has set a project to extend educational opportunity to children, called "Extended Compulsory Education Pilot Project". The project was initially implemented by having secondary education in country-wide primary schools (except Bangkok) in the year 1990. There was no tuition fee in those schools. Emphasis was put on rural areas where proportion of students continuing secondary education was low due to poverty of parents. After that there was an assessment, which found that the project had assisted children with disadvantages in education to gain opportunities for higher education. Moreover, people expressed their support, and request for more of such those schools. Later the Ministry of Education has speed up the process of extending education to overall regions by having the Office of the National Primary Education Commission operate more lower secondary education in primary schools under its authority. This stage was conducted under the project named "Extended Opportunity in Fundamental Education Project". The project was a response to the policy to extend educational opportunity stated in the Cabinet Bill of 14 May 1991, which approved the Ministry of Education (by Office of the National Primary Education Commission) to expand extended education in all regions thoroughly. Regulations were set that the extension of having secondary education Level 1 to Level 3 must be conducted in existing primary schools, the primary schools must already have sufficient classrooms, there must not be settlement of new schools, the existing primary schools must have sufficient teachers, and there must be no tuition fee for the extended education. The extended opportunity education schools receive budget to cover tuition cost of all students. Materials for study are provided for children to borrow with no charge, so that there is no difference in conditions between students of secondary schools under the Office of the National Primary Education Commission and secondary schools under the Department of General Education.

Strengths of education in extended educational opportunity schools

Extended educational opportunity schools are educational organizations that extend fundamental and compulsory education of Thai children from 6 years to 9 years. These schools do not charge any tuition fee. The curriculum used for these

schools is the Lower Secondary Education Curriculum of 1978 (Amended in 1990). An important principle is that to concentrate on improving students to be capable of developing their living quality, economy, and social. The extended educational opportunity schools are managed for flexibility and correspond to requirements of students. The education aims to enhance capability of individual students to its maximum level (21). In addition, the curriculum has set objectives to improve living quality of rural, remote, and poor students by providing them basic vocational knowledge that will be useful for them in their occupations after graduation (22).

Weakness and limitations of education in extended educational opportunity schools

Extended educational opportunity schools are different from regular secondary schools in that they used to have only primary education, but now extended to secondary education Level 3. Thus they are having problems of lacking teachers to teach at secondary education levels. The teachers were insufficient in both number and knowledge required for those higher levels of education. Therefore, educational quality of these schools is considered lower than regular secondary schools, which are equipped with more teachers, experiences, and materials. Most students in these schools are also from poor families, and have different educational backgrounds. Some students are regularly absent from schools to help their parents who have economical problems. Some students move schools frequently due to the movement of their parents' occupations. Some students have abandoned studying for a long period before resuming. Some students have mental or intellectual problems but having to attend the same class as regular students. Some students have to help their parents simultaneously while studying, making them rarely have time for reading books or doing homework. Such these conditions bring many problems about educational adjustments to students. In some cases, students do not want to continue their secondary education after graduation from primary schools, but having to do so because of demand of their parents. Attending classes without willingness, students develop and accumulate stress, anxiety, depress, and many consequent distorted

behavioral problems. Therefore, students in extended educational opportunity schools are in situation that assistance and improvement practices are particularly needed (22).

Ideas and theories regarding depression in adolescents

Depression can occur in people of all sexes and all ages. Statistics of psychological patients in Thailand show that number of patients, especially adolescents, with depression is increasing. Beck (12) explains expressed behaviors of people with depression that the behaviors resulted from complexity of feeling and thinking. The expression of these distorted behaviors can be categorized into these 5 characteristics.

1. Having changing feelings such as sorrowful, sad, wandering, lonely, or emotionless.
2. Having negative thinking to oneself. These people tend to blame themselves.
3. Having regressive behaviors. For example, these people may want to punish themselves, escape from others, hide themselves, or want to die.
4. Having abnormal change in physical functions, such as getting bored with food, having insomnia, losing sexual desire, etc.
5. Showing changes while doing routine activities, such as working slower with more agitation and anxiety.

Adolescents easily develop variation of feelings. Approximately 40 percents of adolescents aging between 14-15 years old used to feel sad, want to cry, and want to live alone. 20 percents of them feel that they are valueless, and 8 percents used to want to die (23). The study of William (24) stated that adolescents who had critical experiences, such as divorcement of parents, feel that they are not welcomed by others. They usually feel that they are different from friends. These influencing factors are causes of distorted thinking that may lead to depression.

Generally, important symptoms of depression in adolescents and adults are similar. The symptoms include sadness, sorrow, upset, anger, lacking of interests, forgetfulness, insomnia, getting bored with food, slowness in thinking and moving,

feeling valueless, and wanting to die. However, adolescents may also appear to have behavioral problems simultaneously, such as becoming aggressive, getting addicted to drugs, or having sex without caution. Such these behaviors may hide their depression inside (1).

When adolescents have depression they would neglect friends or surrounding environments. Some of them may not express any feelings, while some of them may express anger, upset, showing aggressive behaviors, acting against social, and having study problems (25). This corresponds to the study of Goodwin (26), which studied relationship of anger management and depression feelings of adolescents. The study found that the depression has significant relationship with anger: when adolescents develop depression resulted from adjustment or social problems, they would feel angry and try to cope with the anger by several means, such as showing aggressive behaviors, moving the body more than usual, or using drugs.

Theories explaining causes of depression

1. Biological theories

Genetic transmission theory explains that depression is a deficiency on psychological health that is hereditary. A study of monozygotic twins reveals that if one of them has depression, chances that the other also has depression can be as high as 70 – 80 percents. However, the figure is reduced to only 10 – 25 percents for dizygotic twins (25). Another study found that if either father or mother has depression, the child has twice chances to have depression comparing to regular children. And if both of them have depression, chances that their child may have depression can be 4 times higher than regular children (1). In addition, it was found that relatives at the level 1 of depression patients have higher chances to have depression than general people around 1.5 - 3 times (27).

Biochemical theory of depression explains that depression is from deficient functionality of central nervous system, causing reduced concentration of several neurotransmitters namely acetylcholine, dopamine, serotonin, and norepinephrine (10). Decrease of norepinephrine brings about a feeling of unhappiness, a desire to die, lack of concentration, and reduction of sexual desire. Decrease of

serotonin causes a feeling of getting bored with food, easy to get upset, incapable to control oneself, and also reduction of sexual desire (28). Besides, a study glucose metabolism in the brain of depression patient indicated that they have less metabolism of glucose (11).

It is believed that neuroendocrine plays an important role in causing depression. A major finding is the discovery of increasing cortisol in people with depression (29).

2. Psychosocial cause

A theory that is widely accepted in explaining depression is cognitive theory. It explains that people may have depression when they encounter serious experiences for the first time in life that they were unable to handle. Depression that is developed in a person will make that one think that they cannot change or make the situation better. This condition may be even deteriorated by lack of support or encouragement from others. People with depression will keep processing events wrongly, and accumulate such that thinking over time. When that person encounter critical situation in life, he or she will recall the mistakes in the past, and that stimulate negative automatic thoughts, which result in consequent depression: the more negative automatic thoughts the more depression, and the more depression the more negative automatic thoughts. This phenomenon continually happens in cycle (30), and can be illustrated with the diagram.

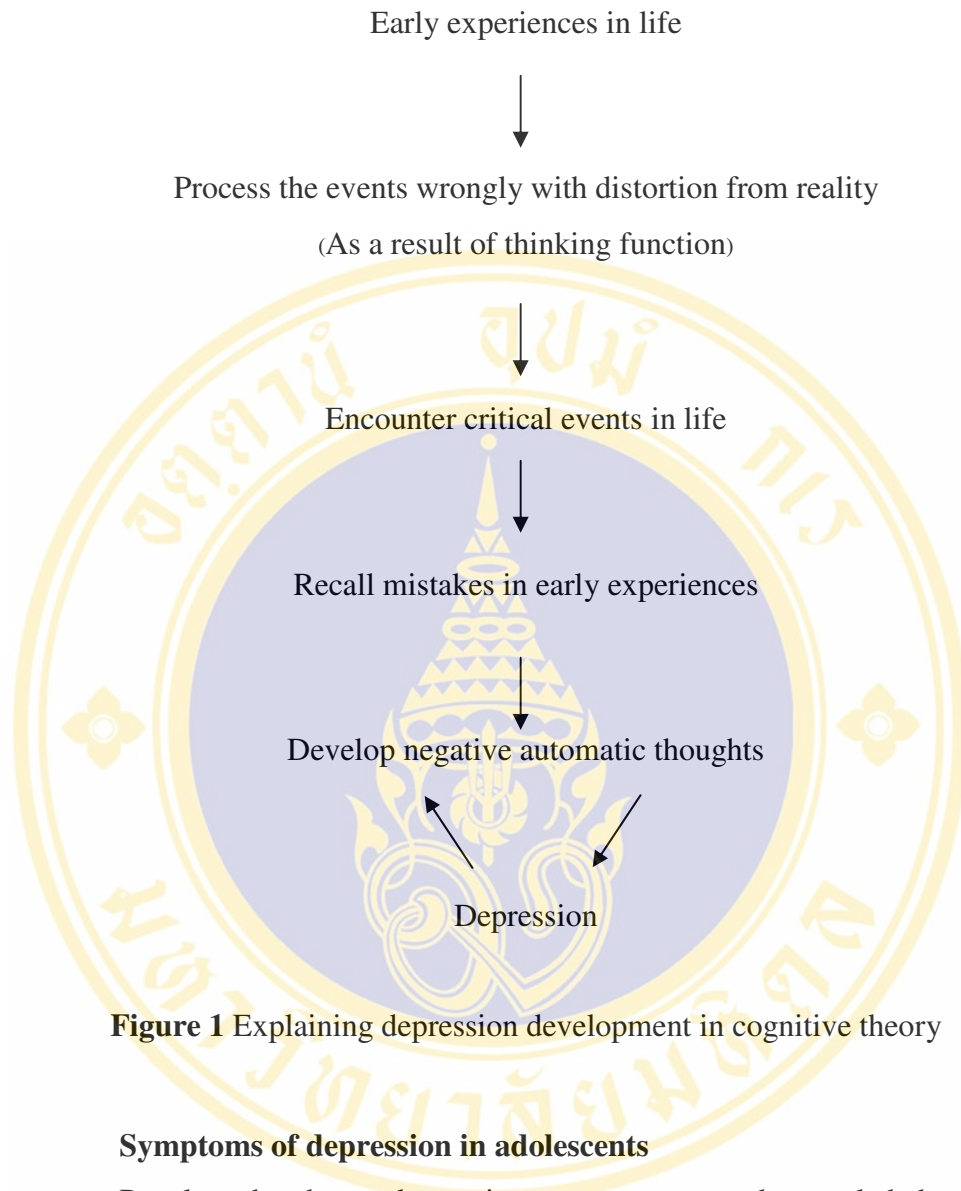


Figure 1 Explaining depression development in cognitive theory

Symptoms of depression in adolescents

People who have depression may express abnormal behaviors that represent 4 aspects of variation namely thought aspect, emotion aspect, inducement aspect, and physical and behavioral aspect. These variations increase according to the level of depression (12).

Thought aspect: People with depression would value oneself low, look at the world in a bad way, blame oneself, and find difficulties in making decision. Their thoughts about the image of themselves are distorted.

Emotion aspect: People with depression have sadness as a major emotion. They also feel negative with themselves, and feel less interested in other people.

Motivation aspect: People with depression are lack of motivation to do anything. They always feel tired, want to separate oneself from the social, or wish to die.

Physical and behavioral aspect: People with depression are bored with food. Their sleeping would have variation. Their sexual desire would decrease. They would feel tired, the weight would decrease.

Depression in adolescents (31) affects their learning, understanding, concentration, solving problems, making decisions, relationships, and socialization with friends, teachers, and family members. These effects resulted in their poor performance in study. Even after having recovered from depression, the adolescents may continue having concentration problem, being an obstruction for their study. It used to be believed generally that the cause of depression starts during early childhood of people. However, psychology experts these days have proved that depression can occur at any ages. A study found that 2 percents of little children had major depression, and 8 percents of adolescents were affected from such these depression experience. This may sometimes be developed into severe depression. Symptoms of depression in adolescents can be noticed by observing these changing characteristics.

1. Emotional characteristics. Adolescents may express sadness or look very sad, without any enjoyment. Sometimes they cannot tolerate the feeling and may cry. They would feel worthless in themselves. These characteristics can be used to identify depression adolescents out of regularly sad students. Some students may not express their depression clearly, but would rather show abnormality of emotions, such as moody, quick-tempered, aggressive, and so on.

2. Lacking of motivation. Depression students do not enjoy playing with friends or showing any interest to surrounding environment. They do not feel joyous or happy, and do not pay attention to study. They avoid joining school activities and separate oneself from friends.

3. Characteristics about thoughts. These depressed adolescents often think that they are not beautiful, not handsome, not lovely, but ugly. They think they had never done anything right, all their deeds were wrong in the eyes of adults. They feel hopeless, depressed, valueless, support-less, having no choices, losing self-confidence, having failure, lacking ability, seeing the world in a bad side, being sensitive to

comments or blames, always feeling guilty of previous mistakes in the past, having no concentration in study. All these characteristics lead to their poor study performance, negligence to responsibility, desire to die, unhappiness, slow movement, or flurried movement.

4. Characteristics of physical well-being. Children may change their eating habits, sleeping hours, or showing other abnormal physical activities. Some of them may express vague physical complaints that cannot be identified, such as having frequent headache, stomachache, muscle pain, etc.

5. Risky behaviors. Depression adolescents may turn to some risky activities such as using drugs, joining activities prone to accidents, injuries, or death, and so on.

Depression Assessment

Depression assessment is normally conducted by examining or observing symptoms of the patients and asking them about their symptoms or feelings. Observing symptoms may have some problems or limitations if the observer does not pay careful attention to the patient. Making inquiry to patients may have limitation with incomplete data, especially data regarding sensitive feeling. Some depression patient is lack of communication skills (i.e. unable to express their feelings in words). In addition, in case of adolescent depression patients, practitioners or doctors may have problems in getting their answers due to their shyness. Thus a tool for assessment like “self-report”, which allow patient to give answers by themselves at their free time, is very efficient.

Reynolds Adolescent Depression Scale (RADS) is a self-report tool, created by Reynolds in the year 1981. This testing form was translated into Thai by Rerai Teewatad (32). This tool allows patients to assess their depression by themselves.

Rerai Teewatad (32) has validated the Thai questionnaire’s content comparing to original questionnaire by having it revised and approved by 2 psychological doctors and 1 clinical psychologist. In addition, the revised questionnaire was tested again by assessing depression patients comparing to regular

high secondary education Level 5 students, and found that those groups were significantly different at the significant level of .05. RADS questionnaire was later used to study depression in adolescents of Chonburi Province and found that reliability of this questionnaire was .87.

This testing form for assessing depression is composed of words that represent feelings and emotions that are characteristics of depression patients. The 30 items RADS testing form can be categorized into 5 sections namely:

1. Emotional symptoms: This section consists of items about positive and negative feelings include happy, anxious, sad, crying, discouraged, angry, and cheerful.
2. Cognitive symptoms: This section consists of items of feelings namely feeling valueless, feeling unimportant, wishing to hurt oneself, having low self proud, seeing things negatively, blaming oneself, hating oneself, pitying oneself, feeling hopeless in getting help.
3. Psychomotor symptoms: This section consists of items namely upset, exhausted, talking slowly or being quiet, lacking of interest and no participation in new activities.
4. Somatic symptoms: This section consists of items namely feeling fever, having sleep problems, stomach ache, and abnormal food consumption.
5. Interpersonal relationship: This section consists of items namely feeling lonely, separate oneself from social, and unhappy.

Factors influencing development of depression in adolescents

Depression is a psychological health problem found in all sexes and ages. Development of depression in each individual is from many different factors. The researcher is interested in studying factors concerning negative automatic thoughts, factors concerning social support, and other relevant factors. Details of the factors are as the following.

Factors concerning negative automatic thoughts

Thoughts that lead to depression are thoughts that relate to internal event. This kind of thoughts cannot be observed directly by others. The 4 components of Beck's cognitive model of depression (12) as itemized below should be realized.

1. Negative automatic thoughts
2. Structure of negative automatic thoughts
3. Beck's cognitive triad
4. Cognitive Error

Details of each component can be explained below.

Negative automatic thoughts

Negative automatic thoughts refer to sentences, phrases, or imagination that come into the brain abruptly, without intention, without any attempts, without rational thinking, uncontrollable, unplanned, and lead to habits of behaviors (33). Automatic thoughts are different from voluntary thoughts, which occur when people are fully conscious and aware of those thoughts. Voluntary thoughts can be controlled. Automatic thoughts, on the other hand, are more stable but less rational and less accessible. However, both automatic thoughts and voluntary thoughts correspond to belief systems or schemata of each individual, which is obtained from learning and experiences in life. In addition, Ellis (34) has given opinion about Beck's idea about automatic thinking that it corresponds to his ideas, which he calls self-statements and irrational beliefs.

Structure of negative thoughts

Structure of negative thoughts, or known in the other name as "permanent negative beliefs of each individual", derives from conclusions of experiences in each individual. Structure of negative thoughts functions as filters or models for following thoughts. Examples of structure of negative thoughts (35) are discussed below.

1. "You stink" structure of negative thoughts: This will lead to feeling bad about other people, thinking of others as they are bad people. For example, anyone who acts against me is a bad person.

2. “I stink” structure of negative thoughts: This structure makes people feel bad about oneself. For example, I am worthless, I am not good, I am valueless, etc.

3. “Namby-pamby” structure of negative thoughts: This structure of thoughts make people give up and become nonsense. For example, I can’t tolerate, I can’t adjust to this problem, I am getting mad, etc.

4. “Monster” structure of negative thoughts: This is a structure that makes people feel as if they have received something bad, such as a monster, into the body. For example, I am in danger, I am sick.

5. “Doomsday” structure of negative thoughts: This structure makes people feel worse about any situations than reality. For example, this is a catastrophe, I have no hope, no future.

6. “Fairy tale” structure of negative thoughts: This makes people feel over-optimistic about surrounding environment. For example, everything will become better, the world will be as I want.

7. “Alone” structure of negative thoughts: This makes people feel lonely. For example, I am denied by others, I am lonely.

8. “Kitten” structure of negative thoughts: This makes people feel negative about enjoyment. For example, I am weak, I am powerless.

9. “Bomb” structure of negative thoughts: This makes people feel totally failed. For example, I can’t control myself.

10. “Victim” structure of negative thoughts: This makes people feel that they become a victim of others. For example, I always have bad lucks, the world is cruel, God is not fair, everyone does wrongly to me, etc.

Beck’s cognitive triad

Beck (12) has classified negative thoughts into 3 major types (Beck’s cognitive triad) namely:

1. Self negative thoughts
2. World or environmental negative thoughts
3. Future negative thoughts

Due to the influencing effects of thoughts toward moods, feelings, and habitual behaviors (36), negative thoughts result in negative feelings and behaviors.

Nahl & James (37) has described about the 3 types of Beck's cognitive triad as the following.

Item 1, Self negative thoughts: This is a kind of thoughts that make people always feel bad about oneself. They also feel that there will be disaster, catastrophe, or something bad happen to them. They will expand these feelings to interpretation of all events. They may think that they are not good, not fair, and not sincere. The outcome is their lost of power or energy and motivation. Regular characteristics that can be found from this kind of thoughts are, for example, slow movement, having fewer activities, incompleteness of work, mistakes from lacking consideration, having injuries from carelessness, becoming more risky, being unable to complete work, etc.

Item 2, World or environmental negative thoughts: These thoughts make people think negatively toward other people, surrounding environment, or the world as a whole. They feel that life is full of obstruction, people are cruel to them. They misinterpret that other people don't like them, making them misunderstand people, and worsen the situations. They will have deficiencies in thinking, causing anger and negative feelings toward the environments. The expression they express as a response to the feelings maybe anger, pride, wanting to hurt others or destroy properties. When the negative thoughts are accumulated for a long time, they may want to hurt others or harm others for revenge, have a hatred feeling, wish to punish others as if they were worthless, want to divide groups, feel less sympathy toward others.

Item 3, Future negative thoughts: This kind of thoughts make people forecast that they will face difficulties and sadness for the rest of their life. The negative thoughts about future make people lose confidence and believe that the future cannot be changed. They feel that they are too bad to change themselves to make things better. They envisage bad images of themselves and the future. They think they will not be accepted by others no matter how hard they try to improve themselves. They may lose eagerness and become inactive, resulted in sadness, depressed, losing hope, losing motivation to do anything for a better future, and wishing to die or disappear from this world.

Cognitive Error

Cognitive Error or erroneous thoughts present these following characteristics (12):

1. **Arbitrary inference:** People with erroneous thoughts will judge the events based on insufficient information. For example, people whose sickness was not cured because of their own misconduct misjudge that the medical practice was inefficient.

2. **Selective abstraction:** Erroneous thoughts make people choose to pay attention to only negative experiences. For example, depression patients think that they have no joyous moments at all for a whole day, which is caused by the level of their depression that prevents their perception of happiness.

3. **Overgeneralization:** Erroneous thoughts make people think and interpret events beyond reality, which is a quick decision that based on just one experience. For example, depression people who have once made a mistake think that they always make mistakes.

4. **Magnification:** Erroneous thoughts make people magnify or distort the importance of events. For example, when there is something bad happen, even that is a little thing, depression people will consider it as a very serious matter, which is originated from their own distorted thinking.

5. **Personalization:** Erroneous thoughts make people consider events in just one aspect, and result in some personal behaviors that become their personality. For example, when one intends to make eye contact with a friend, but getting no response, one may feel that one must have done something bad that made the friend dislike or become unhappy.

6. **Dichotomous thinking:** Erroneous thoughts make people think of only one perspective of events or people. For example, when they cannot finish a job, they feel that they cannot work on anything else anymore.

Assessment tool for negative automatic thoughts

Child's Automatic Thought Scale (CATS) is a form for assessment of negative automatic thoughts in children. It is a self-evaluation form suitable to children and adolescents aging 8 to 17 years old. This form measures negative

thoughts that relate to feelings directly. It is capable to measure both the internal problems in the children's minds or their externally expressed behaviors as responses to their problems (38).

Development of assessment form for negative automatic thoughts in children of Schnierring and Rapee (33) was based on the intellectual framework of Beck's cognitive model, which stated that negative feelings can be noticed via words or contents of discussion. The contents may contain intended thoughts, automatic thoughts, and imagination. Contents of thoughts can be categorized and find specific relationship with sickness. Thoughts, beliefs, and imagination that people feel like they are threatened physically or mentally relate to their anxiety about losing something. Personal failures of people relate to their depression, thoughts, beliefs, and imagination of violating something. They may find reasons to explain their aggressive behavior and unfriendliness. Schnierring and Rapee brought contents regarding negative automatic thoughts from in-depth interviews to derive reflections of negative automatic thoughts from self assessment. They created questions based on those contents. The questions were checked for quality and reliability by considering their internal consistency. The consistency was determined by using Cronbach's alpha coefficient, which resulted in the alpha value of .95. They also used test-retest correlation coefficient to measure consistency of total score at 1 month and 3 months, which found to be .76 and .76 respectively. The coefficient has high discriminate validity that can be used to identify depression adolescents out of control group of regular adolescents. Confirmatory factor analyses were conducted and found that contents of negative automatic thoughts in children and adolescents can be categorized into 4 aspects, each aspect has 10 items, totaling 40 items. The 4 aspects as listed below were found to be different but highly related.

Content of negative thoughts concerning physical threat aspect

1. Content of negative thoughts concerning social threat aspect
2. Content of negative thoughts concerning personal failure aspect
3. Content of negative thoughts concerning hostile intent aspect

Relationship of each aspect of negative automatic thoughts contents toward sickness was explained by Schnierring and Rapee (33) that: content of negative

automatic thoughts concerning physical threat aspect relates to physical anxiety symptoms; content of negative thoughts concerning social threat aspect relates to social anxiety symptoms; content of negative thoughts concerning personal failure aspect relates to depressive symptoms; and content of negative thoughts concerning hostile intent aspect relate to oppositional symptoms.

This study used Child's Automatic Thought Scale (CATS) of Schnierring and Rapee. The form was translated into Thai language, and has passed quality control check by Kaesinee Songmuang (13) for agreement of contents. The translation was double checked by converting back and forth between Thai and English, both of which were checked by language experts. The final was revised again from recommendations from the experts. Cronbach's alpha coefficient was used to test validity of the final questionnaire, which was found to be 0.97. This tool is appropriation for self-assessment of children and adolescents aging 8-17 years old, which makes it properly correspond to the study's objectives and samples.

Factors concerning social support

Social support is relationship among people in the society to maintain well-being of people's mind. It has been widely accepted for a long time that social support are psychologically social factors that have major influence toward sickness, mortality, physical and mental health, and can bring happiness to people.

Social support is a complex matter. Basic theories that can be used to explain about social support are (39):

1. Social comparison theory: It is believed that people would develop their thoughts based on comparison with other people in their group. Therefore, social comparison is an important process in developing thoughts of people regarding capability to handle encountered problems, to make a decision, to be proud of oneself, and to live happily. However, social comparison will not result in successful development of thoughts in individuals if it is used without social exchange processes.

2. Social exchange theory: This theory explains that human behaviors results from exchanging interaction of people in the society. People can have good

characteristics from having good interaction with other people. People can learn good things from others. With exchange of people in receiving and giving things to and from others, the social can be better, and its people can be satisfied. Such this social support represents capability of the social.

3. Social capability theory: This theory explains that social capability is an efficient capability for interaction with the environment. This theory indicated that condition of social health is a dimension of capability in operation. Social capability is important in creating and maintaining relationships among people, which is important for health of the social. The theory accepts that social health affects well-being of people's lives. With reduced or insufficient social capability, people may want to separate themselves from the social, result in unsatisfactory mind and consequent physical problems.

Social support

Social support refers to the way people receive help and benefits from others in all aspects from others that make the person feel safe and secured. People may contribute to social support via communication, information exchange, discussion, and social activities. Social support enable people to help others, take care of others, behave properly, become accepted by family members and the society, and receive advice and encouragement in solving problems. Thus social support is relationships that arise from cooperation of individuals in family and the social (40), (41).

Types of social support

Brandt and Weinert (40) categorized social support into 5 types as the following.

1. Attachment: By being loved by others and having close relationship with others, a person can feel good about oneself for being loved and cared, which means security and enjoyment in life.
2. Social spelling check: People can feel that they are part of the social from taking part in social activities, which can induce exchanges of ideas and supports

(physically and mentally). With social activities, people can have good understanding and care for others. Without these relationships, people will feel abandoned, lonely, lacking of advice or support, and result in sadness and hopeless that may make them get bored with being alive.

3. Opportunity for nurturance: By getting chances to look after others or helping others a person can have relationship with the inferior people, have a feeling of responsibility, have a feeling that one is needed by others, and have a feeling that one can be relied by others.

4. Reassurance of worth: People who have been accepted and respected from others for the good things they do to others would feel that they are valuable. The feeling of being worthy make people have self-confidence and become energetic in helping others more.

5. Assistance: People can receive assistance from the social via many means such as getting information, advice, emotional support, material support, etc. that they can use for solving problems and handling stressful events in life.

For this study, the researcher employed principles of Brandt & Weinert in studying social factors because their ideas cover all afore-mentioned types of social support, which are attachment, social spelling check, opportunity for nurturance, reassurance of worth, and assistance. Therefore, their principles are appropriate for this study.

Importance of social support toward health conditions

A report studying relationship of social support and health conditions by Callaghan and Morrissey (42) revealed that most researches about social support studied based on 2 major theories namely the Buffer Theory, which describe social support as buffer that protect people from all kinds of stress that come to life, and the Attachment Theory, which explains that secure relationship that originated since childhood is contributive to social support when people become adults.

Social support have 3 patterns of effects toward health condition: being helpful to health promotion, being supportive in making people know the goals of life, and being contributive to health-care behaviors. A study found that social support helps enhancing skills to handle problems, increase self-confidence and pride,

strengthen self-control, relieve depression, and promote perception and understanding of stress (43). Importance of social support has these 3 following characteristics.

1. Maintain health condition: Social support helps managing the environment to be in proper condition and help reduce occurrence of stress.
2. Endorse health condition: Social support provide the environmental conditions suitable for growth and development.
3. Protect people from illness: Social support helps making people able to adjust themselves to stress in order to reduce stress and prevent sickness.

Many attempts have been made to study and explain mechanics or effects of social supports toward health condition. In conclusion, its effects can be explained with the two models below.

1. The main effect model: Social support has direct benefit to life. It promotes satisfaction, which is a basic need of social. Such these direct benefits to health condition act as immunization to people in the social. Participation in social activities relate to proper functionality of body, mind, nerve systems, pituitary glands, and immune system. On the other hand, without social support, people will be lack of immunity, resulting in many health problems. Many studies have found that social support have positive relationship with quality of life and self-care of patients with chronic diseases (15).

2. The buffer model: Social support functions as a protection from stress. It helps making people adjust themselves to handle problems properly. Social support can help protect, or become a buffer that reduces effects from critical events that happen. It helps making situations become better. People with strong supports are believed to be capable to face with major changes in life and manage situations correctly. The study of Mathurin Kamwongpin (44) on stress, solutions, and social support of people used to try to commit suicide found that social support help making people feel better, able to face with stress, reduce stress, and feel less serious with the problems.

Assessment of social support

Personal Resource Questionnaire (PRQ) of Brandt and Weinert has been created according to the theory on social support of Weiss (41). The questionnaire contain questions covering 5 aspects of social support namely attachment, social spelling check, opportunity for nurturance, reassurance of worth, and assistance. The social support questionnaire comprises two parts. Part 1 contains questions asking about sources of help for each person, which is divided into 10 kinds of sources. Part 2, used for assessing realization of individual in receiving social support, contains 25 items of questions asking both positively and negatively. The questionnaire is capable to assess both quantity and quality of social support.

Later, in the year 2000, the questionnaire was improved in its Part 2 for better assessment of social support by Weinert (45). The new version, called Personal Resource Questionnaire (PRQ2000), contain 15 positive questions. However, the developer stated that Part 1 was not included in PRQ 2000 since both parts are independent to each other. In addition, questions in Part 1 lengthen the questionnaire, with main purpose to assess only sources of support (45). The questionnaire for social support has been tested with samples with high diversity, including regular people, patients, and people who look after patients with chronic disease. Reliability of the questionnaire resulting from analysis of the test was between .87 to .93. That means this questionnaire can be used to assess social support efficiently, and covers all aspects with emphasis on feelings and mind.

For this study, the researcher used Part 2 of Personal Resource Questionnaire (PRQ2000) by Weinert (45) as the tool for measuring perception of receiving social support. This questionnaire was translated to Thai language by Prapasri Tungmophon (46). It has passed quality control check for agreement of contents. It was also checked for correlation with the questionnaire to assess epidemic of depression in the community of Center for Epidemiologic Studies Depression Scale (CES-D), and the r value appeared to be between $-.44$ to $-.51$. The questionnaire was chosen because it can be used in all groups of samples, and it covers several aspects of social support with emphasis on feelings and mind, which correspond to objectives of this study on depression.

Other factors

Sex

A study on depression in children found that different sexes have different degree of depression. Girls tend to have a higher degree of depression, and with a higher proportion, than boys. Social factor is found to be more influencing in girls than boys. Different roles in the social cause more difficulties to girls (47). This is in agreement with the study of Umaporn Trangkasombat and Dusit Likhanapichitkul (48) who studied depression in children aging 10-15 years old and found that girls had more depression than boys.

Economical status of the family

Schoenbach et.al (49) studied about depression in children aging 12 to 15 years old that were from poor families and found that they had high proportion and degree of depression. In addition, the study of Umaporn Trangkasombat and Dusit Likhanapichitkul (48) also found that depression of students in lower secondary schools in Bangkok who were from poor families had a high degree of depression.

Marital status of parents

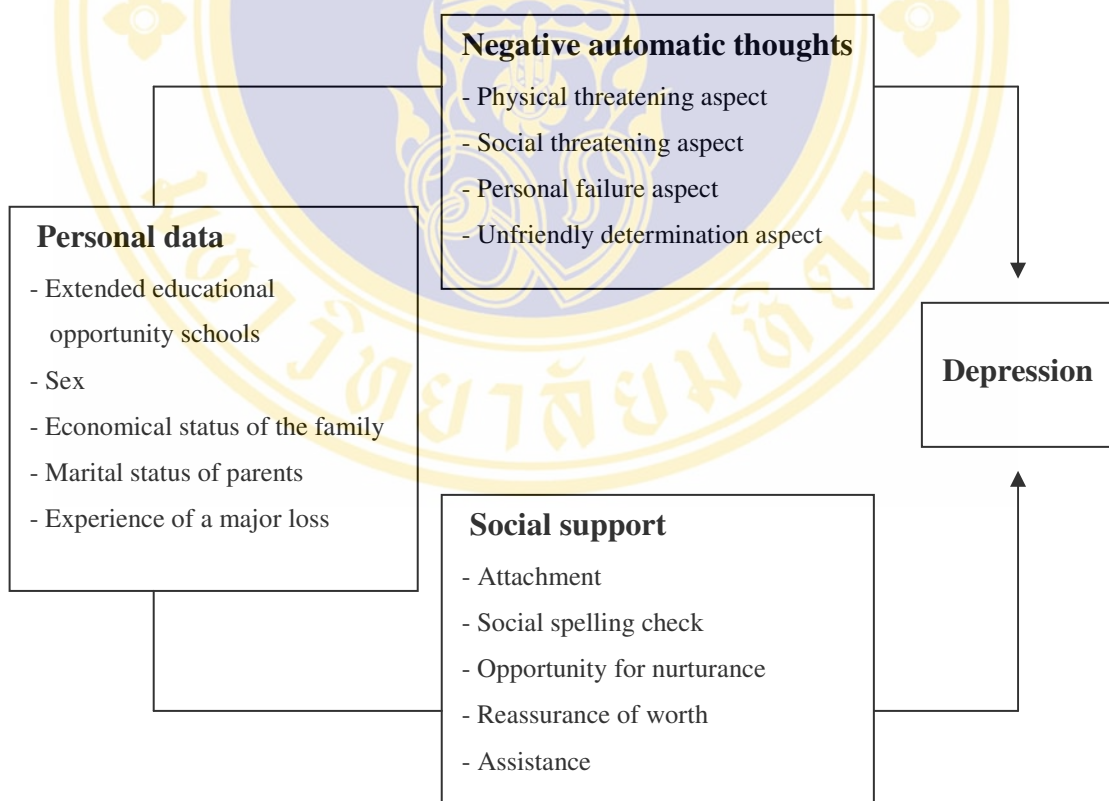
Marital status of parents has a high influential effect on development of depression. Good relationship of parents with proper marital status can help children have better psychological health. Problems about relationship or marital status of father and mother, who divorce or have disputation, make adolescents find problems in adjusting themselves to social, become anxious, rely on friends, and may have depression eventually (50).

Experience of a major loss

The study of Lewinsohn, Allen, Seeley, & Gotlib (51) regarding factors influencing recurrence of depression in 1,709 adolescents (286 of them had depression experience and 1,423 of them had not) found that experiencing a major loss in life can help predict depression in adolescents, especially for those who have never had depression before.

Conceptual framework

When people face a crisis in life, they may recall mistakes in the past, and that may stimulate negative automatic thoughts, which cause them to be less reasonable. As a result, they would look down in themselves, look at the world or the environment negatively, and develop depression eventually. In addition, good support from the social, which is the support that makes people realize they are being loved and cared as a part of social, chances to take care of others and offering helps to others, perception in self-esteem, and acquisition of helps are important factors that act as preventives for sickness. Without social supports, the physical health of people would become weaker, the mental health would be worse, and eventually that would result in depression as well. Conceptual framework of the research can be drawn as the following.



CHAPTER III

MATERIALS AND METHODOLOGY

Methodology for the study

This study is a predictive correlational research conducted with a purpose to examine factors influencing depression of adolescent students in the extended educational opportunity schools of Samutsakhon Province.

Population and sampling

Population for this study was lower secondary school students in the extended educational opportunity schools of Samutsakhon Province, under the Samutsakhon Education Service Area Office. There were 27 schools in total during the educational year 2008.

Samples of this study were selected randomly with multistage random sampling method from lower secondary school students in the extended educational opportunity schools of Samutsakhon Province, under the Samutsakhon Education Service Area Office, in the educational year 2008. The process of multistage random sampling method can be explained as the following.

Step 1. Select schools that will be studied on purpose. The criterion in choosing school was size of the schools. One school was selected in each of the 3 districts of Samutsakhon Province. The schools that were selected had highest number of students comparing to other schools in the same district. The selected schools were:

Muang District:	Wat Klongkru School
Kratumbaen District:	Wat Nangsao School
Banpaew District:	Wat Jedriew School

Step 2. Determine sample size by using a random sampling method of survey research, in case of know population size and variation of the population (52). Population size was estimated from the figure in the educational year 2007, which was 5,325 students.

$$\text{Formula} \quad n_{\mu} = \frac{NZ^2 \sigma_x^2}{NE^2 + Z^2 \sigma_x^2}$$

n_{μ} : Proper sample size to study the population (μ), with the confidence level of $1-\alpha$, and the approximation will be different from real value less than E.

N : Number of members of the targeted population.

Z : The area under the normal curve, which was set at the length of $\alpha / 2$ from the middle of the curve. The Z value fixes area under the normal curve to be $1-\alpha$.

σ_x^2 : Deviation in the population of the interested variable.

E : Maximum error that can be accepted.

E was set to be .10 at the confidence level of 95 %, Z = 1.96

$$\begin{aligned} \text{Formula} \quad n_{\mu} &= \frac{NZ^2 \sigma_x^2}{NE^2 + Z^2 \sigma_x^2} \\ &= \frac{(5,325) (1.96)^2}{(5,325)(.10)^2 + (1.96)^2} \\ &= 358.3105 \\ &\approx 358 \end{aligned}$$

It was found from the calculation above that the required sample size is at least 358 students.

Step 3. Used proportional stratified random sampling for selecting students in each school.

The formula was:

$$\text{Samples in a school} = \frac{\text{Total sample} \times \text{total population of the school}}{\text{Total population of all schools}}$$

Therefore, numbers of samples in schools were as the following.

Wat Klongkru School:

Total population = 466 students, sample size = 144 students

Wat Nangsao School:

Total population = 510 students, sample size = 157 students

Wat Jedriew School:

Total population = 184 students, sample size = 57 students

To reduce effects of errors in data collection, the researcher increase sample size for 10% in all schools. Therefore, the real numbers of sample size in this study were:

Wat Klongkru School : sample size was increased to 158 students

Wat Nangsao School : sample size was increased to 173 students

Wat Jedriew School : sample size was increased to 63 students

Total : sample size was increased to 394 students

Step 4. Select samples within each school using simple random sampling method. In order to obtain representatives from all sexes and limit variation of classes, the study drew lots to select classes randomly and collect data of all students in the selected classes. The required sample size is at least 394 students.

After collect data, the total sample size was 426 students.

Scope of the research

This research aims to study factors influencing depression of adolescent students in lower secondary education classes of Wat Klongkru School, Wat Nangsao School, and Wat Jedriew School in the educational year 2008. The schools are extended educational opportunity schools of Samutsakhon Province, under the Samutsakhon Education Service Area Office. Collected data for this study include personal data, data regarding factors concerning negative automatic thoughts, and data regarding factors concerning social support.

Research instruments

Instruments used in this research can be divided into 4 parts.

Part 1 Questionnaires for personal data that are sex, age, class, GPA, family member, marital status of parent, occupation of parent, income of student and parent, type of study, reasoning for studying in extended educational opportunity schools, physical and psychological health problems.

Part 2 Questionnaire for negative automatic thoughts data.

Child's Automatic Thought Scale (CATS), for children aging 8-17 years old, of Schniering and Rapee (38). The form was translated into Thai language, and has passed quality control check by Kaesinee Songmuang (13). The questionnaire had content validity and Cronbach's alpha coefficient was used to test reliability of the questionnaire, which was found to be .97.

The questionnaire consists of 40 questions, which can be grouped into 4 aspects namely:

- Physical threatening aspect : 10 questions
- Social threatening aspect : 10 questions
- Personal failure aspect : 10 questions
- Unfriendly determination aspect : 10 questions

Criteria for scoring

Answers of the questionnaire are 5 levels of occurrence of thoughts specified in the questions. Students can choose only one level for each question.

0 means the thought in that question has never occurred at all.

1 means the thought in that question occurs once in a while.

2 means the thought in that question occurs sometimes.

3 means the thought in that question occurs frequently.

4 means the thought in that question occurs all the time.

Results interpretation

Resulting scores from the questionnaire to measure negative automatic thoughts was interpreted into 3 levels of severity namely:

0-34 points mean having a low level of negative automatic thoughts.

35-80 points mean having a moderate level of negative automatic thoughts.

81-160 points mean having a high level of negative automatic thoughts.

Part 3 Questionnaire for social support.

This research used Personal Resource Questionnaire (PRQ2000) of Weinert (45) for assessment of social support factors. This questionnaire was translated to Thai language by Prapasri Tungmophon (46). It has passed quality control check for agreement of contents. It was also checked for correlation with the questionnaire to assess epidemic of depression in the community of Center for Epidemiologic Studies Depression Scale (CES-D), and the r value appeared to be between $-.44$ to $-.51$. Validity of the Thai PRQ2000 questionnaire was tested using Cronbach's alpha coefficient, and the confidential level was between $.87$ to $.93$.

The questionnaire consists of 15 questions regarding 5 aspects of social supports namely:

1. Attachment aspect (being loved and intimated)
2. Social spelling check aspect (being accepted and value oneself)
3. Opportunity for nurturance aspect (being a part of the social)
4. Reassurance of worth aspect (being helpful for others)
5. Assistance aspect (receiving helps and advice)

Criteria for scoring

Answers to the questions use rating scale of 7 levels to express agreement, which were interpreted as the following.

7 points	means	Highly agree
6 points	means	Agree
5 points	means	Rather agree
4 points	means	Uncertain
3 points	means	Rather disagree
2 points	means	Disagree
1 points	means	Highly disagree

Overall interpretation

Grouping of social support score was conducted using stratified me statistical standards as criteria in determining class intervals as following.

15-45 points	means having a low level of social support
46-75 points	means having a moderate level of social support
76-105 points	means having a high level of social support

Part 4 Questionnaire for depression

The study used Reynolds Adolescent Depression Scale (RADS), which was developed in 1981 to assess depression in adolescents by Reynolds. This questionnaire was translated into Thai language by Rerai Teewatad (32) in thesis from graduate studies of Mahidol University controlled by Assoc. Prof. Chirdsak Kowasint.

The RADS questionnaires was tested for validity and found that questions were derived from criteria in identifying depression of Diagnostic and Statistical Manual of Mental Disorders III (DSM III) and Research Diagnostic Criteria (RDC), which were universal approaches in identifying psychological problems. Therefore, the questionnaire passed content validity check. Besides, this questionnaire was analyzed for criterion related validity and found that it correspond to BDI (Beck's Depression Inventory), CES-D (Center for Epidemiologic Studies Depression Scale), Zung (Zung Self-Rating Depression Scale) and CDI (Children's Depression Inventory), with correlation coefficients ranging from .68 to .76. The questionnaire

was also analyzed for construct validity using factor analysis and found that all of the 30 questions are suitable for measuring characteristics of depression.

In case of Thailand, Rerai Teewatad (32) has validated the Thai questionnaire's content. In addition, the revised questionnaire was tested again by assessing depression patients comparing to regular high secondary education (Grade 11) students, and found that those groups were significantly different at the significant level of .05. RADS questionnaire was later used to study depression in adolescents of Chonburi Province and found that reliability of this questionnaire was .87.

This testing form for assessing depression is composed of words that represent feelings and emotions that are characteristics of depression patients. The 30 items RADS testing form can be categorized into 5 sections namely:

1. Emotional symptoms: This section consists of items about positive and negative feelings include happy, anxious, sad, crying, discouraged, angry, and cheerful.
2. Cognitive symptoms: This section consists of items of feelings namely feeling valueless, feeling unimportant, wishing to hurt oneself, having low self proud, seeing things negatively, blaming oneself, hating oneself, pitying oneself, feeling hopeless in getting help.
3. Psychomotor symptoms: This section consists of items namely upset, exhausted, talking slowly or being quiet, lacking of interest and no participation in new activities.
4. Somatic symptoms: This section consists of items namely feeling fever, having sleep problems, stomach ache, and abnormal food consumption.
5. Interpersonal relationship: This section consists of items namely feeling lonely, separate oneself from social, and unhappy.

Criteria for scoring

The answers of the RADS questionnaire use rating scale, which represents 4 levels of occurrence of the feeling.

Never means the student never has that feeling at all.

Hardly ever means the student hardly ever has that feeling.

Sometimes means the student sometimes has that feeling, but not frequent.

Most of the time means the student has that feeling most of the time.

The items contain texts of both positive and negative feelings. Scoring of answer is explained below.

There are 7 items with positive feelings, which are items number 1, 5, 10, 12, 23, 25, and 29. Scoring for these items is:

Never receives 4 points

Hardly ever receives 3 points

Sometimes receives 2 points

Most of the time receives 1 points

The remaining 23 items represent negative feelings. Scoring for these items is:

Never receives 1 points

Hardly ever receives 2 points

Sometimes receives 3 points

Most of the time receives 4 points

Overall interpretation

Summarized scoring of RADS ranges from 30 points to 120 points. Interpretation of these scores uses cut off point score at 77. That means answerer scoring higher than 77 points is likely to have depression.

Rights protection of the samples

This research was approved by Siriraj Institutional Review Board, Mahidol University, that it did not violate rights or welfare, and did not cause injuries to

participants. However, a risk that may happen in participating this study is that the participants may feel uneasy in giving answers to the questions, and may keep on feeling bad after completing all questionnaires. That is because a content of the questions aims to understand internal feelings of the participants. The researcher observed behaviors and reactions of participants during their tests in all tests. All abnormal reactions or behaviors that are relevant to depression were noted. After completion of the tests, the researcher asked feelings of participants. If any of them express worry or anxiety the researcher would discuss with him or her and give advice to make them feel better.

After the research participants had finished the tests, the researcher contacted the teacher in charge of the classroom for the participants and their parents contacts for further monitoring. In order to protect privacy of participants, if any student was found to have a score higher than 77 points in RADS questionnaire the researcher would contact the participants and their parents directly to inform the results. In addition, advice and suggestion was given to the depression students, such as advising them to find doctors or go to nearby healthcare institutions for further analysis and treatment.

This research was conducted for a study purpose. Therefore, the participants did not receive any payments. Students and parents also did not have to pay for their participation.

Personal data of research participants are protected for privacy. Their names were replaced with codes. Personal results were not revealed to public. The study results reveal only overall information. However, personal data may be checked for some individuals by some groups of authorities such as research sponsors, governmental organizations in charge, etc.

Research participants may withdraw from the project at anytime without having to inform in advance. Giving no cooperation to this research would not have any effects on education of the students.

Data collection

The researcher collected data by himself together with a research assistant. Data were collected between 19 January 2009 to 31 March 2009. Procedures for data collection were as the following.

1. The researcher contacted and requested for permission to use questionnaires for this study.
2. The researcher asked the Graduate School to compose letters to director of the selected extended educational opportunity schools in Samutsakhon Province for permission to collect data of their students.
3. The researcher presented the project to the Siriraj Institutional Review Board.
4. After receiving approval from the chairperson of the Siriraj Institutional Review Board, the researcher sent letters asking for permission to collect data, which also contained objectives of the research, to directors of the extended educational opportunity schools in Samutsakhon Province that were chosen as samples for this study.
5. After receiving approval from the school directors, the researcher select students as samples for the study according to the specified criteria. A meeting was arranged in each school to inform students and teachers about objectives and details of this research, and to ask for their cooperation.
6. The researcher gave letters of approval to students for brining to their parents and ask for cooperation in allowing their children to participate in the research by signing their names to approve the student's participation.
7. After getting approval from the parents, the researcher arrange a meeting to meet with selected students in each school again to collect their signatures for permission to use their data and their answers for the research's objectives.
8. Then the test was conducted. Questionnaires were given to students. They were informed to do each set of questionnaires separately. After the students had finished giving their answers, all questionnaires were collected and checked for completion.
9. After the test had ended, the researcher examined feelings of students and had discussion including giving advice for those who expressed worry.

10. After all test procedures had completed, the researcher immediately went to meet the teachers in charge of classes of the participants to ask for their parents' contact information.

11. The researcher collected all the questionnaires and scored them according to criteria of each type of the questionnaires. In case of students whose summarized scores for RADS questionnaire were higher than 77 points, which is an indication of depression, the researcher would contact them and their parents directly for giving advice and suggestion to visit doctors for proper treatment.

12. All data of scores and students' information in the questionnaires were later analyzed statistically for deriving descriptive research results.

Data analysis

The data were analyzed using SPSS for Windows for research results with the following topics.

1. Descriptive statistics regarding general personal data, scores for negative automatic thoughts, scores for social support, and scores for depression of lower secondary education students in extended educational opportunity schools.

2. Factors influencing depression of lower secondary education students in extended educational opportunity schools analyzed with stepwise multiple regression methodology.

CHAPTER IV

RESEARCH RESULTS

This research studied factors influencing depression of adolescent students in the extended educational opportunity schools of Samutsakhon Province. Data were collected between 19 January 2009 to 31 March 2009. The total sample size was 426 students. The results were divided into six parts as follows:

- Part 1** Personal data of the samples
- Part 2** Depression of the samples
- Part 3** Negative automatic thoughts of the samples
- Part 4** Social support of the samples
- Part 5** Predicting depression of the samples
- Part 6** Comparing the mean score of depression of the samples

Part 1 Personal data of the samples

Table 1 The frequencies and percentage of students were divided by sex and age.

Characteristics	Frequencies (n = 426)	Percentage
Sex		
Male	196	46.01
Female	230	53.99
Age		
12 years old	16	3.76
13 years old	153	35.92
14 years old	164	38.50
15 years old	86	20.19
16 years old	5	1.17
17 years old	1	.23
18 years old	1	.23
(Min = 12, Max = 18, Mean = 13.81, S.D. = .88)		

From Table 1, most sampled students were female, accounted for 53.99% of the total. Age range of all the samples was between 12 to 18 years old, the mean was 13.81 years old, and standard deviation was .88. Most of them aged between 13 to 15 years old, accounted for 94.61%.

Table 2 The frequencies and percentage of students were divided by school, class, and GPA.

Characteristics	Frequencies (n = 426)	Percentage
School		
Wat Klongkru School	179	42.02
Wat Nangsao School	181	42.49
Wat Jedriew School	66	15.49
Class		
Secondary education Level 1	169	39.67
Secondary education Level 2	169	39.67
Secondary education Level 3	88	20.66
Grade Point Average		
0.01-1.00	2	.47
1.01-2.00	53	12.44
2.01-3.00	189	44.37
3.01-4.00	182	42.72
(Min = 1.00, Max = 4.00, Mean = 2.86, S.D. = .67)		

From Table 2, most of the samples studied in Wat Klongkru School and Wat Nangsao School, accounted for 84.51%. Most of them studied in secondary education Level 1 and Level 2, accounted for 79.34%. The mean of their grade point averages was 2.86, and the standard deviation was .67. It was also found that 87.09% of them had grade point averages between 2.00 to 4.00.

Table 3 The frequencies and percentage of students were divided by family member and marital status of parents.

Characteristics	Frequencies (n = 426)	Percentage
Family member		
2 persons	6	1.41
3 persons	67	15.73
4 persons	195	45.77
5 persons	75	17.61
6 persons	31	7.28
7 persons	21	4.93
8 persons	11	2.58
between 9 to 15 persons	20	4.69
(Min = 2, Max = 15, Mean = 4.72, Median = 8.5, S.D. = 1.89)		
Marital status of parents		
Living together	307	72.07
Separated parents	91	21.36
Either parents had passed away	26	6.10
Both parents had passed away	2	.47

From Table 3, the sampled students had family members ranging from 2 to 15 persons. However, most of them had 3 to 5 members in their families, with the most found family members appeared to be 4 persons, accounted for 45.77%. In addition, some of them had relatively large number of family members that are students with between 9 to 15 family members accounted for 4.69%. Regarding marital status of parents of the samples, most of them had parents living together, accounted for 72.07%. The remaining 27.93% had separated parents, or either or both parents had passed away.

Table 4 The frequencies and percentage of students were divided by parent's occupation, average monthly income of family, and daily money of student.

Characteristics	Frequencies (n = 426)	Percentage
Father occupation		
Employee	269	63.15
Merchant	52	12.21
Agriculture	31	7.28
Others	74	17.37
Mother occupation		
Employee	246	57.75
Merchant	74	17.37
Housewife	44	10.33
Others	62	14.55
Average monthly income of family		
Lower than 10,000 Baht	215	50.47
10,000-15,000 Baht	160	37.56
15,000-20,000 Baht	33	7.75
Higher than 20,000 Baht	18	4.23
Daily money of student		
Lower than or equal 40 baht	219	51.41
Higher than 40 baht	207	48.59
(Min = 15, Max = 150, Mean = 47.95, Median = 40, S.D. = 21.33)		

From Table 4, the occupation that most fathers and mothers of the samples had was employee, accounted for 63.15% and 57.75% respectively, which were over half of the total. The families of the samples which had average monthly income lower than 15,000 bath accounted for 88.03%, and, furthermore, 50.47% of the total, or over half of them, had monthly income lower than 10,000 bath. In addition, the median of

daily money that students received for coming to schools was found to be 40 baht. The group that received lower than or equal 40 baht accounted for 51.41%, and the group received higher than 40 baht was 48.59%.

Table 5 The frequencies and percentage of students were divided by Type of study and Reason for studying.

Characteristics	Frequencies (n = 426)	Percentage
Type of study		
Only study	335	78.64
Study and help their families to work	91	21.36
Reason for studying		
Up to requirement of the family	272	63.85
Cheaper cost than other schools	124	29.11
Failed to study in the required school	59	13.85
Being close to home	52	12.21
Others	27	6.34

Note, the samples can select reason for studying more than 1 choice.

From Table 5, the study found that the type of study of most samples, 78.64%, was “only study”, which means they did not have to help their families to work for more income. Regarding their reasoning for studying in extended educational opportunity schools, most of the sampled students answered “up to requirement of the family”, accounted for 63.85 percents, which was over half of the students that selected at least this reason.

Table 6 The frequencies and percentage of students were divided by health problems.

Characteristics	Frequencies (n = 426)	Percentage
Physical health		
Having congenital diseases	77	18.08
- <i>Asthma</i>	31	7.28
- <i>Allergy</i>	21	4.93
- <i>Gastritis</i>	9	2.11
- <i>Others</i>	16	3.76
No congenital diseases	349	81.92
Mental health		
Used to have mental health problems	1	2.82
- <i>Migraine</i>	3	.70
- <i>Stress</i>	3	.70
- <i>Worry</i>	3	.70
- <i>Sadness</i>	2	.47
- <i>Short concentration</i>	1	.23
Didn't use to have mental health problems	414	97.18

From Table 6, it was found that only a few of the sampled students had congenital diseases, accounted for 18.08%. The congenital diseases that found most in the samples were asthma and allergy, accounted over half among all congenital diseases. In addition, the students were found to have experiences of psychological health problems, accounted for 2.82 percents namely migraine, stress, worry, sadness, and short concentration, accounted for 2.82 percents.

Part 2 Depression of the samples

Table 7 The frequencies and percentage of students were divided by level of depression.

Level of depression	Frequencies (n = 426)	Percentage
Having no depression	379	88.97
having depression	47	11.03

(Min = 31, Max = 106, Mean = 57.87, S.D. = 13.72)

From Table 7, the overall mean score for depression of the sampled students as derived from their answers in the RADS questionnaire was 57.87 points, and the standard deviation was 13.72. Proportion of sampled students with depression was 11.03 percents, while proportion of those having no depression was 88.97 percents.

Part 3 Negative automatic thoughts of the samples

Table 8 The frequencies and percentage of students were divided by level of negative automatic thoughts.

Level of negative automatic thoughts	Frequencies (n = 426)	Percentage
Low level (0-34 scores)	288	67.61
Moderate level (35-80 scores)	122	28.64
High level (81-160 scores)	16	3.76

(Min = 0, Max = 128, Mean = 30.50, S.D. = 20.84)

From Table 8, the sampled students had overall mean score for negative automatic thoughts of 30.50 points, and the standard deviation was 20.84. It was found that most samples had a “low level” of negative automatic thoughts, accounted for 67.61 percents. However, even though the mean score was in a “low level”, but that was close to a “moderate level”. In addition, students with a “moderate level” and a “high level” of negative automatic thoughts accounted for 32.40%, or about one-third of the total.

Part 4 Social support of the samples

Table 9 The frequencies and percentage of students were divided by level of social support.

Level of social support	Frequencies (n = 426)	Percentage
Low level (15-45 scores)	36	8.45
Moderate level (46-75 scores)	170	39.91
High level (76-105 scores)	220	51.64
(Min = 18, Max = 105, Mean = 72.51, S.D. = 17.51)		

From Table 9, the overall mean score for social support of the samples was 72.51 points and the standard deviation was 17.51, and was categorized as a “moderate level”. It should be noted that the score of 72.51 points was almost high enough to be categorized as a “high level”. Over half of the total, accounted for 51.64%, had a “high level” of social support

Part 5 Predicting depression of the samples

Table 10 Pearson correlation between negative automatic thoughts and social support with depression of students.

	Pearson correlation	p-value
	Depression	
Negative automatic thoughts	.601	.000
Social support	-.214	.000

From Table 10, it was found that negative automatic thoughts had positive statistical correlation with depression, at the significant level of .001, and the Pearson product-moment correlation coefficient was found to be .601. Meanwhile, social support was found to have negative statistical correlation with depression, at the significant level of .001, and their Pearson product-moment correlation coefficient was -.214.

Table 11 Stepwise multiple regression analysis for predicting depression of students.

Characteristics	b	SE _{bi}	β	t	p-value
Negative automatic thoughts	.39	.025	.59	15.48	.000
Social support	-.14	.030	-.17	-4.58	.000
		a = 55.94	SE _{est} = ±10.736		
		R = .625	R ² = .391		

From Table 11, the result from the last stage of stepwise multiple regression analysis with 2 independent variables showed that the correlation coefficient was .625, and the predictive standard deviation was ±10.736. In addition, two independent variables, which were negative automatic thoughts and social support, were found to have significant effects on the dependent variable at the significant level of .001, and could be used to predict depression in 39.1 percents of the samples.

Part 6 Comparing the mean score of depression of the samples

Table 12 Comparing the mean score of depression of students divided by sex, GPA, family member, and daily money of student.

Characteristics	N	Mean	S.D.	t	p-value
Sex					
Male	196	56.69	13.81	-1.637	.102
Female	230	58.87	13.60		
Grade Point Average					
Low-GPA (≤ 2.86)	207	57.99	13.30	-.174	.862
High-GPA (> 2.86)	219	57.76	14.14		
Family member					
Lower than or equal 4 persons	268	58.05	14.01	.355	.723
Higher than 4 persons	158	57.56	13.27		
Daily money of student					
Lower than or equal 40 baht	219	57.25	13.50	-.966	.335
Higher than 40 baht	207	58.53	13.96		

From Table 12, the figures revealed that different characteristics between male and female students, between high-GPA students and low-GPA students, between students with less than or equal 4 family members and students with more than 4 family members, and between students received daily money less than or equal 40 Baht and students received daily money more than 40 Baht did not result in statistically significant difference in depression scores of the sampled students.

Table 13 Comparing the mean score of depression of students divided by marital status of parents and average monthly income of family.

Characteristics	N	Mean	S.D.	t	p-value
Marital status of parents					
Living together	307	57.52	13.63	-.844	.399
No living together	119	58.77	13.98		
Average monthly income of family					
Less than 10,000 baht	215	59.20	13.56	2.025	.043
Equal or more than 10,000 baht	211	56.52	13.79		

From Table 13, the figures showed that, comparing between students living with both parents and students living with a single or no parent, both groups were insignificantly different in their depression scores. Comparing between students of families with monthly income less than 10,000 baht to those of families with monthly income equal or more than 10,000 baht, significant difference was found at the significant level of .05, with students of families with monthly income less than 10,000 baht having higher depression scores than those of families with monthly income equal or more than 10,000 baht.

Table 14 Comparing the mean score of depression of students divided by type of study and reason for studying.

Characteristics	N	Mean	S.D.	t	p-value
Type of study					
Only study	335	57.38	13.84	-1.421	.156
Study and help their families to work	91	59.68	13.20		
Reason for studying					
Up to requirement of the family	272	58.26	13.50	-.772	.441
Did not choose this reason	154	57.19	14.13		
Cheaper cost than other schools	124	59.17	14.96	-1.252	.211
Did not choose this reason	302	57.38	13.17		
Failed to study in the required school	59	57.85	13.53	-.068	.946
Did not choose this reason	367	57.98	14.99		
Being close to home	48	56.27	13.33	-.857	.392
Did not choose this reason	378	58.07	13.78		

From Table 14, the results showed that depression scores comparing between students who “only study” and students who “study and help family work” did not have statistically significant difference, which is same to comparison between students who chose some provided reasons for answering about their decision in attending extended educational opportunity schools and students who did not choose any provided reasons, which also showed insignificant difference.

Table 15 Comparing the mean score of depression of students divided by congenital disease and mental health problem.

Characteristics	N	Mean	S.D.	t	p-value
Congenital disease					
Having	77	61.88	13.83	2.858	.004
No having	349	56.99	13.56		
Mental health problem					
Used to have	12	77.75	13.25	5.246	.000
Didn't use to have	414	57.29	13.32		

From Table 15, the study found that students having congenital diseases and students who had no congenital diseases had significant difference in their depression scores at the significant level of .01 in the way that students with congenital diseases had higher depression scores than students without congenital disease. Comparison between students with experiences of psychological health problems and students without such those experiences also showed significant difference between the two groups at the significant level of .001, as the students with experiences of psychological health problems had average depression score higher than students without experiences of psychological health problems.

Table 16 Comparing the mean score of depression of students divided by school location and class.

Characteristics	N	Mean	S.D.	F	p-value
School location					
Muang District	179	60.66	13.61	8.171	.000
Kratumbaen District	181	56.77	13.67		
Banpaew District	66	53.87	13.72		
Class					
Secondary education Level 1	169	58.15	14.32	.213	.808
Secondary education Level 2	169	57.34	12.95		
Secondary education Level 3	88	58.35	14.12		

From Table 16, the figures revealed that different characteristics between Secondary education Level 1, 2, and 3 did not result in statistically significant difference in depression scores of the sampled students. But it was found that students with different school locations had significantly different scores of depression at the significant level of .001. After comparing differences of depression scores between each pair of the school locations using Scheff's method, results of the comparison analysis are shown in Table 17.

Table 17 Comparing the mean score of depression of students divided by the different of school location.

School location (District)	Muang		Kratumbaen		Banpaew		
	Mean						
		Different	p-value	Different	p-value	Different	p-value
Muang	60.66	-	-	3.89	.025	7.34	.001
Kratumbaen	56.77			-	-	3.45	.206
Banpaew	53.32					-	-

From Table 17, the study found that students whose school located in Muang District had significant different mean depression score than students of the school locating in Kratumbaen District, at the significant level of .05, as students of the school in Muang District had a higher mean score of depression. Similarly, students of the school in Muang District had a higher mean score of depression than students studying in Banpaew District, and these groups were found to be significantly different at the significant level of .01. However, there was no significant difference in the mean depression scores between students studying in Kratumbaen District and students studying in Banpaew districts.

CHAPTER V

CONCLUSIONS DISCUSSIONS AND RECOMMENDATIONS

This study is a predictive correlational research conducted with a purpose to examine factors influencing depression of adolescent students in the extended educational opportunity schools of Samutsakhon Province, under the Samutsakhon Education Service Area Office. Samples of this study were 426 students in the educational year 2008 that were selected randomly with multistage random sampling method. After that, data were collected between 19 January 2009 to 31 March 2009.

Data collection was done by 4 instruments included: 1. personal data form, 2. Child's Automatic Thought Scale (CATS), for children aging 8-17 years old, of Schniering and Rapee (38). The form was translated into Thai language by Kaesinee Songmuang (13). 3. Personal Resource Questionnaire (PRQ2000) of Weinert (45). This questionnaire was translated to Thai language by Prapasri Tungmophon (46), and 4. Reynolds Adolescent Depression Scale (RADS) of Reynolds that was translated into Thai language by Rerai Teewatad (32). Finally, the data were analyzed using SPSS for Windows for research results with descriptive statistics and stepwise multiple regression methodology.

Conclusions

1. Proportion of sampled students with depression was 11.03 percents.
2. The "low level" of negative automatic thoughts was found most, accounted for 67.61 percents, followed by "moderate level" and "high level", accounted for 28.64 and 3.76 percents respectively.
3. The "high level" of social support was found most, accounted for 51.64 percents, followed by "moderate level" and "low level", accounted for 39.91 and 8.45 respectively.

4. Negative automatic thoughts was found to have positive statistical correlation with depression, at the significant level of .001.

5. Social support was found to have negative statistical correlation with depression, at the significant level of .001.

6. The results revealed significant level of .001 that negative automatic thoughts and social support factors accounted for 39.1 % of the variability in early adolescent depression.

7. Students of families with monthly income less than 10,000 and students of families with monthly income equal or more than 10,000 baht had significant difference in their depression scores at the significant level of .05.

8. Students having congenital diseases and students who had no congenital diseases had significant difference in their depression scores at the significant level of .01.

9. Students with experiences of psychological health problems and students without experiences of psychological health problems had significant difference in their depression scores at the significant level of .001.

10. Students with different school locations had significantly different scores of depression at the significant level of .001

Discussions

Characteristics of students in extended educational opportunity schools

This research was conducted with students in extended educational opportunity schools. Comparing to regular secondary schools, there are many aspects of differences between these two school types to be elaborated as the following. (53)

1. Most extended educational opportunity schools are located near living areas of poor students. These schools operate several education levels, ranging from kindergarten to lower secondary education. Children within the service area are all acceptable to the schools. Moreover, these schools do not charge tuition cost, and students do not have to pay for study materials.

2. Most students of these schools are from poor families. Examining personal characteristics, 50.47% or over half of the sampled students were from families with monthly income less than 10,000 baht, which may negatively affect living quality of these students economically. Furthermore, it was found that 21.36% of the students had to help their families work for more family income, which also implies that their families' economical situation was not good. Therefore, poverty may be an important factor that causes these students to have study problems: some may have less time to study, some may be unable to catch up with friends, and some may even have to leave their education without graduation. The study problems can have highly negative influence on adjustment of the children or adolescents. As a result, they may have stress, worry, oppression, and develop many other kinds of deviant behaviors (22).

3. Most parents of these students do not have high education. That also resulted in their occupations of low income. From the personal characteristics of this study, over half of parents of all the sampled students had the occupation of "employee". After considering in more details, most of them were employees in industrial factories with a low income. Some of them had to work overtime and had less time to take care of their children or grandchildren. In addition, some parents do not pay much attention to the education of their children. They might only want their children to finish just fundamental education, since that would enable their children to start working for the family as soon as possible, or otherwise that might be just because they did not have enough money to support their children for higher education. These factors cause students who want to pursue their educational goals having to obey family requirements. The students may become oppressed from not being able to follow their own desire, and develop psychological health problems. This is in agreement with the study results, as students answering that they chose school according to family requirements accounted for as high as 63.85%.

4. Most teachers in these schools have relatively low quality. They may not have developed techniques suitable for secondary education, since they used to teach only primary education classes. In addition, number of teachers is also insufficient to the amount of work in extended educational opportunity schools. The insufficiency happens most with subjects like mathematics, sciences, English, and

vocational subjects (54). Therefore, educational quality of these schools is considered inferior to regular secondary schools.

5. Regarding administration, some studies have found that study materials according to the curriculum, financial budget, class equipments, and durable articles of these school were insufficient, and monitoring or auditing of these items was either unclear or inefficient (54) (55). With this lack of sound administration, students in extended educational opportunity schools had to study in a lower quality of education than regular secondary education students. As a result, these students are outperformed when taking an exam for higher education. For failing in their expected goals, these students may be disappointed and develop negative automatic thoughts, and may have depression eventually (36).

The study on depression of adolescent students in the extended educational opportunity schools

It was found from the study that adolescent students in the extended educational opportunity schools of Samutsakhon Province had proportion of presence of depression at 11.03 percents, which is higher the figure reported by Jacobs et.al (3) of 7 percents for average proportion of depression adolescents, which is same to comparison a study in China, it was found 5.9 percents of depression adolescents (56). However, comparing to the studied figure in Thailand for proportion of depression adolescents, which is 548 persons per 100,000 persons or .55 percents (4), the figure found in this study is much higher. Anyhow, comparing to the study of Ratchana Singthong (19), who studied relationship of behaviors, problems, satisfactions, social support, and depression of students in the extended educational opportunity school of Muang District, Surat Thani Province and found that the proportion of adolescents with depression was 41.6 percents, the resulted figure from this study is much lower. After consideration, these differences may be contributed by different study instruments that each study used, different characteristics of students and also different study areas. In addition, the figure from this study is comparable to the figure of Rerai Teewatad (32) who also used Reynolds Adolescent Depression Scale (RADS) questionnaire to study depression of high secondary education students and found proportion of depression students to be 22.04 percents. Comparing to the higher figure

of Rerai Teewatad (32), it can be explained that high secondary education students had higher proportion of depression because they had to work harder for the study and also for preparing to take exams to enter university.

The study on negative automatic thoughts of adolescent students in the extended educational opportunity schools

Results from this study found that adolescent students in extended educational opportunity schools having a low level of negative automatic thought accounted for 67.61%, having a moderated level accounted for 28.64, and having a high level accounted for 3.76%. Generally, people with normal psychological health condition have some level of negative automatic thoughts. This study found that the mean score of negative automatic thought, 30.50 points, was in a low level, but that was also near a moderate level. Thus the figure somehow contradicts with the cognitive theory that states that previous failures or mistakes in the past would stimulate negative automatic thoughts, which means these students should have had a higher figure of negative automatic thought. However, this low figure might result from the sampled students having to follow decisions of the family, as 63.85% of them chose to study in extended educational opportunity schools because of the family requirement. Beck (12) said that people would judge their thoughts either positively or negatively according to the experiences that they had with decisions from their important persons, such as father or mother. Therefore, this may explain why their negative automatic thought appeared to be in a low level. However, it should also be noted that proportion of students having a moderate level and a high level of negative automatic thought together accounted for 32.40%, which is almost one-third of the total. This may imply that there are quite a large number of these students who are likely to have psychological health problems.

The study on social support of adolescent students in the extended educational opportunity schools

The study found that adolescent students in the extended educational opportunity schools of Samutsakhon Province had social support at a low level for 8.45 percents, at a moderate level for 39.91 percents, and at a high level for 51.64

percents. The overall mean score for social support of the samples was 72.51 points that was categorized as a “moderate level”. It should be noted that the score of 72.51 points was almost high enough to be categorized as a “high level”. Therefore, their social support is considered high. This can be explained that most low secondary education students live with parents, so they are supported and taken care by their parents or relatives. By living with parents and being loved by relatives, these students feel that they have good social support. In addition, they also have many friends at schools and friends from neighboring families. These students are in the age that enjoys living with others and making friends. Being part of a group makes adolescents have feelings of being welcomed, being accepted, being honored, being understood, and being shared for either happiness or sadness (57). Therefore, they have high social support from finding friends and participating in many social activities with other people.

Predicting depression of adolescent students in the extended educational opportunity schools

From the study result, the factors of negative automatic thoughts and social support were found to have influential correlation with depression, with the correlation coefficient equaled .625. The factors could be collaboratively used to predict depression in the sampled students for 39.1%, at the significant level of .001, and the standard deviation in prediction equaled ± 10.736 . This capability in prediction from this study is considered very high, which means negative automatic thoughts and social supports are greatly important to occurrence of depression in adolescent students of extended educational opportunity schools. This result is due mainly to the risky level of negative automatic thoughts of these students, since about one-third of them were found to have moderate to high levels of negative automatic thoughts, and that can lead to depression. Social support of these students of extended educational opportunity schools was found to be in a good level, and have inverse effect to depression. Therefore prediction can be made from the assumption that: the better the social support, the less chances students will have depression.

In addition, when analyzed with Pearson product-moment correlation coefficient, it was found that, at the significant level of .001, negative automatic

thoughts had positive correlation with depression, and social support had negative correlation with depression.

Negative automatic thought was the first factor used to predict depression of the samples. This corresponds with the cognitive theory, which states that when negative automatic thoughts happen it would result in depression: the more negative automatic thoughts the more depression. Meanwhile, depression would also lead to more negative automatic thoughts. This phenomenon happens in cycle (30). Furthermore, the result from this study is in agreement with the study of Kaesinee Songmuang (13) who studied negative automatic thoughts of adolescent students and found that their depression correlated with negative automatic thoughts. It is also in agreement with the study of Ladda Saenseeha (30) who studied depression and negative automatic thoughts in older adolescents. There are also some international researches that did not find statistically significant positive relationship between negative automatic thoughts and depression (58), (59). Besides, the result from this study is also in agreement with concepts of some groups of psychologists, such as Ellis (34) who proposed that dysfunctional thinking or irrational thinking are fundamentally caused by irrational beliefs, which is a very important factor that cause psychological health problems, especially an emotional problem like depression. Meanwhile, some groups of psychologists have stated that a negative thought is a factor that has positive relationship with depression (60). These concepts have confirmed about important influence of negative automatic thoughts toward depression. These sampled students are prone to having a high level of automatic thought due to their different education and some personal factors such as family income. They may therefore have negative feelings toward themselves or the environments, which can lead to negative automatic thoughts.

Social support is another factor that was used to predict depression in the sampled students. There are many reports revealing that social support can act as a buffer that can help protect or relieve effects from critical events in life and improve the situations. It is believed that people who receive strong supports can handle and manage problems or changes in life properly. In contrary, people with insufficient social support have more chances to develop depression (16), (17). This is particularly true for children with relationship problems who can have a high level of depression

and anxiety from not being accepted by friends (18). The application of social support to depression prediction also correspond with the research of Ratchana Singthong (19), who studied relationship of behaviors, problems, satisfactions, social support, and depression of students in the extended educational opportunity school of Muang District, Surat Thani Province, which found that social support had correlation with depression at the significant level of .05. Some researches in foreign countries also found that when adolescents encountered critical events in life they would have to adjust themselves enormously. Strong support from the social was found to be greatly helpful in reducing the risk from problems that may be harmful to psychological health (61). Particularly, social support from father and mother is very important. Adolescents of families that both parents are living together without any experiences of great losses in the family are likely to have efficient immunity against psychological health problems (62).

Other factors influencing depression of adolescent students in the extended educational opportunity schools

This study found that there were some other factors that affected depression of sampled adolescent students in the extended educational opportunity schools of Samutsakhon Province. Physical and mental health problems were both found to have negative effects on depression. The statistical results shown that the average depression score of students with congenital diseases was significantly different, and higher than the average depression score of students without genital disease with the significant level of .01. Students that used to have psychological health problems and students who never had psychological health problems were also found to have different average depression score at the significant level of .001, with the students having experiences of psychological health problems had a higher average depression score. This can be explained that students with physical or mental health problems feel that they are inferior than others, causing them to develop negative automatic thoughts, and lead to depression easier than students without health problems (12). Besides, Johnson, Rathner, & Boottorf (63) have found from their study that perceived self-efficacy and perceived health status had influential effect toward health-care behaviors of individuals. Students with health problems would

realize that they have less capability, and would perceive their health conditions negatively. This will result in behaviors that are not helpful, or even worsen their health. Negative automatic thoughts is an obvious example of such those behaviors, which may also cause depression.

Economical factor is also found to be an important factor that affected depression among these students. At the significant level of .05, students of families with income less than 10,000 baht per month were found to be significantly different in mean depression scores from students of families with income equal or mother than 10,000 baht per month. Unsurprisingly, students of families with lower monthly income had a higher mean depression score than students of families with higher monthly income. As stated earlier, most students in extended educational opportunity schools are from families with low income, causing them to have less accessibility to resources than regular students. The poverty and its effects resulted in inferior living quality, and can cause depression. This study result corresponds to the study of Schoenbach et.al (48) who studied adolescents aging 12 to 15 years old who were from poor families and found that they had symptoms of high depression. Besides, the study of Umaporn Trangkasombat and Dusit Likhanapichitkul (47) found that students of lower secondary schools in Bangkok who were from families with low income had a high level of depression.

In addition, depression is also found to be influenced by environmental factors. Location of the schools was also found to have influences on depression. Students whose school was in Muang District were found to have more depression than students who studied in Kratumbaen District and Banpaew District. Average depression score of students studying in Muang District was significant different from the depression score of students in Kratumbaen District at the significant level of .05. Similarly, average depression score of students studying in Muang District was significant different from the depression score of students in Banpaew District at the significant level of .01. However, the average depression scores of students in Kratumbaen District and students in Banpaew District were found to be insignificantly different. This result can be explained that Muang District of Samutsakhon Province has a characteristic of being more crowded than other districts since it is also more industrialized than other districts. Moreover, Muang District has more population due

to a large number of immigrant workers who migrated from other regions or even other countries. As a result, many problems have been increasing in this crowded city, such as pollution, crimes, drugs, etc. Adolescent students in Muang District have to adapt themselves to the city conditions more than students of other districts, and psychological health problems may arise if they fail to adapt. Kratumbaen District and Banpaew District remain their characteristics of agricultural social. Students in these areas have closer relationship to their families than students in the city. Therefore, they have more social support, and therefore have less depression than students in the city areas. Moreover, most parents of these students were found from the study to work as employees, usually in city areas. These parents may not have sufficient time for their children because they have to work both in regular hours and overtime hours in order to gain as much income for the family as possible due to the current high cost of living. This result is also supported from the figure of monthly income, as most students were found to be from families with low income, which was less than 10,000 baht per month.

Problems and limitations of the research

1. Data for this study were filled by students using self-assessment questionnaires. The questionnaires were collected and separated by classrooms. Therefore, the researcher had less chance to observe behaviors of students during their tests so the researcher had to collect data with research assistants.

2. There was limited time during data collection. The time was allotted by the schools. The researcher had insufficient time for discussion with students who seem to express anxiety after completing the questionnaires so the researcher had to use relax time of students before next class for discussion.

3. Number of students in secondary education Level 3 in this study was less than students from Level 1 and Level 2. That was because the Level 3 students had to prepare for stepping up to high secondary education. Therefore, the schools were not able to provide more Level 3 students for this research. The researcher had to collect data in time that students from Level 3 didn't have the activities.

Recommendations

Recommendations for utilization of the research results

Depression degrades living quality, and may even be harmful to lives in some persons who have been affected for a long time or at a severe level. Adolescents, who will become future of the nation, should particularly pay cautious attention to this sickness, as this study found 11.03% of its occurrence in adolescents. Therefore, solutions to screen patients, promote social support, and prevent depression in adolescents are very important. Thus the researcher would like to make these following recommendations.

1. Families should take good care of students. Love and relationship among all family members should be promoted in order to prevent occurrence of psychological health problems in adolescents.

2. Schools should concentrate on collecting general data and making database of students. Emphases should also be put on congenital diseases and psychological health because these factors can lead to depression.

3. Schools should arrange activities to help reduce negative automatic thoughts in students and promote more social support in order to prevent depression. In addition, teachers should monitor and look after all students equally and thoroughly. When a student is suspected to have psychological health problems, the school should inform parents or close relatives of the student immediately to find solutions and treatments before the problems increase.

4. Public health organizations should arrange events to give knowledge about depression to schools and people. They should also provide psychological health checks to adolescents regarding depression, negative automatic thoughts, and social support. The checks' results can be used for planning and monitoring for more efficient depression prevention in adolescents.

5. Schools should be supported to be able to use some tools for simple screenings test. In addition, they should also know how and where to send the students with depression symptoms for further treatments.

Recommendations for further researches

1. There should be researches conducting on adolescent students in schools other than extended educational opportunity schools, such as general secondary schools, vocational schools, etc. The results should be compared to results from this research for completion of depression data in all groups and all ages of adolescents, which will be useful in planning prevention measures for depression in adolescents.

2. There should be researches studying on other factors that may have influences on depression, such as factors regarding personality, self-appreciation, politics, economy, social, etc., for more successful prevention of psychological health problems.

3. There should be researches that study the qualitative aspect of factors influencing depression so that effects of the factors can be known in details, which would contribute to better prevention of psychological health problems.

4. Factors that affect negative automatic thoughts and beneficial social supports should be studied in detail in order to find solutions to decrease depression or causes of depression. With more knowledge on negative automatic thoughts and social supports, severity of potential problems from depression in adolescents will be reduced.

5. A simple tool for depression screenings test in students, which also need to comply with standards, should be developed for schools, so that they can use the tool to distinguish students with depression at an early stage.

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APPENDIX A

INSTRUMENTS IN THIS STUDY

แบบสอบถาม

ส่วนที่ 1 ข้อมูลส่วนบุคคล

ลำดับที่

คำชี้แจง : กรุณาทำเครื่องหมาย ✓ ลงใน () หน้าข้อความที่เป็นคำตอบ และเติมข้อความลงในช่องว่างแต่ละข้อตามความเป็นจริงให้ครบทุกข้อ

1. เพศ () ชาย () หญิง
2. อายุ ปี
3. ชั้นเรียน () ม.1 () ม.2 () ม.3
4. ผลการเรียนเฉลี่ย
5. จำนวนสมาชิกในครอบครัว คน
6. สถานภาพสมรสของบิดามารดา

() อยู่ด้วยกัน	() แยกกันอยู่
() บิดาหรือมารดาเสียชีวิตคนใดคนหนึ่ง	() ทั้งบิดาและมารดาเสียชีวิตแล้ว
7. อาชีพของบิดา.....
8. อาชีพของมารดา.....
9. รายได้ของครอบครัวต่อเดือน

() ต่ำกว่า 10000 บาท	() 10000-15000 บาท
() 15000-20000 บาท	() มากกว่า 20000 บาท
10. รายได้ต่อวันในการมาโรงเรียน บาท
11. ขณะนี้ท่าน () เรียนอย่างเดียว () เรียนและช่วยครอบครัวทำงานด้วย
12. เหตุผลที่เลือกเรียนโรงเรียนนี้ (ตอบได้มากกว่า 1 ข้อ)

() สอบ / จับสลากเข้าโรงเรียนที่ต้องการไม่ได้	() ตามความต้องการของครอบครัว
() ค่าใช้จ่ายในการเรียนน้อยกว่าโรงเรียนอื่น () อื่น ๆ ระบุ.....	
13. ท่านมีโรคประจำตัวหรือไม่ () มี คือ..... () ไม่มี
14. ท่านเคยมีปัญหาทางสุขภาพจิตหรือไม่ () เคย ได้แก่ () ไม่เคย

ส่วนที่ 2 แบบวัดความคิดอัตโนมัติสำหรับเด็กและวัยรุ่น

คำชี้แจง : ข้อคำถามข้างล่างนี้คือส่วนหนึ่งของความคิดที่เกิดขึ้นได้บ่อยในเด็กและวัยรุ่น โปรดอ่านข้อคำถามในแต่ละข้อแล้วทำเครื่องหมาย ✓ ว่าในสัปดาห์ที่ผ่านมาคุณมีความคิดเหล่านี้ผ่านเข้ามาในสมองอย่างรวดเร็วบ่อยหรือไม่ ในช่องคำตอบที่ตรงกับความคิดของคุณมากที่สุดตามข้อความดังนี้

- 0 = ไม่เคยเกิดขึ้นเลย 1 = เกิดขึ้นบางครั้ง 2 = เกิดขึ้นค่อนข้างบ่อย
 3 = เกิดขึ้นบ่อยครั้ง 4 = เกิดขึ้นตลอดเวลา

ถามตัวคุณเอง “ตลอดสัปดาห์ที่ผ่านมา ฉันคิดว่า.....”

	0	1	2	3	4
1. เพื่อน ๆ คิดว่าฉันโง่					
2. ฉันมีสิทธิที่จะแกล้งเผ็ดพวกเขาถ้าพวกเขาสมควรจะได้รับการแกล้งเผ็ด					
.....					
.....					
.....					
40. คนเลวควรได้รับการลงโทษ					

ส่วนที่ 3 แบบสอบถามแหล่งสนับสนุนส่วนบุคคล

ข้อความข้างล่างต่อไปนี้ บางคนเห็นด้วย และบางคนไม่เห็นด้วย ไม่มีคำตอบใดถูกหรือผิด กรุณาอ่านแต่ละข้อความ และ ✓ ข้อที่ตรงกับความรู้สึกมากที่สุด ตามข้อความดังนี้

1. = ไม่เห็นด้วยอย่างยิ่ง 2. = ไม่เห็นด้วย 3. = ไม่เห็นด้วยบางส่วน 4. = ไม่แน่ใจ
5. = เห็นด้วยบางส่วน 6. = เห็นด้วย 7. = เห็นด้วยอย่างยิ่ง

	1	2	3	4	5	6	7
1. ฉันมีคนใกล้ชิดที่ทำให้ฉันรู้สึกปลอดภัย							
2. ฉันรู้สึกว่าฉันเป็นคนหนึ่งในกลุ่มที่มีความสำคัญ							
.....							
.....							
.....							
15. ฉันรู้สึกว่ายังคงเป็นที่ต้องการของคนอื่น ๆ							

ส่วนที่ 4 แบบทดสอบวัดภาวะซึมเศร้าในวัยรุ่น

(Reynolds Adolescent Depression Scale [RADS])


ประโยคต่อไปนี้ เป็นข้อความเกี่ยวกับความรู้สึกบางส่วนของท่าน โปรดอ่านแต่ละประโยค แล้วคิดว่า มีความรู้สึกอย่างไรบ้าง (ในช่วง 2 สัปดาห์ที่ผ่านมา) เมื่อตัดสินใจได้แล้ว จึง เลือกตอบความรู้สึกที่แท้จริงของท่าน ไม่มีคำตอบใดถูกหรือผิด โดยใส่เครื่องหมาย (✓) ลงใน ช่องหลังคำถามที่ต้องการ ตามข้อความ ดังนี้

1. = ไม่เคยเลย 2. = นาน ๆ ครั้ง 3. = เป็นบางครั้ง 4. = เกือบตลอดเวลา

ความรู้สึก	1	2	3	4
1. ฉันมีความสุข				
2. ฉันกังวลเกี่ยวกับโรงเรียน				
.....				
.....				
.....				
30. ฉันรู้สึกว่าไม่มีสิ่งใดเลยที่ฉันทำแล้วมีประโยชน์				

APPENDIX B

PERMISSION DOCUMENTS FOR USING INSTRUMENTS



บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล
25/25 ถ.พุทธมณฑลสาย 4 ศาลายา นครปฐม 73170
โทร. 0-2441-4125 ต่อ 109-111 โทรสาร 0-2441-9834

ที่ ศธ 0517.02 / **7130**

วันที่ **22** ตุลาคม 2551

เรื่อง ขออนุญาตใช้เครื่องมือวิจัย

เรียน ประธานหลักสูตรปริญญาโท สาขาวิชาจิตวิทยาคลินิก คณะแพทยศาสตร์ศิริราชพยาบาล


ตามที่ นายสุภชัย ตู้กลาง นักศึกษาหลักสูตรปริญญาโท สาขาวิชาจิตวิทยาคลินิก คณะแพทยศาสตร์ศิริราชพยาบาล มีความประสงค์จะขออนุญาตใช้เครื่องมือวิจัย จำนวน 3 ชุด คือ

- 1) แบบทดสอบวัดภาวะซึมเศร้าในวัยรุ่น (Reynolds Adolescent Depression Scale [RADS]) ได้แปลเป็นภาษาไทยโดย นางสาวเรไร ทิวะทัศน์ ซึ่งเป็นส่วนหนึ่งของวิทยานิพนธ์ตามหลักสูตรวิทยาศาสตรมหาบัณฑิต สาขาวิชาจิตวิทยาคลินิก คณะแพทยศาสตร์ศิริราชพยาบาล และบัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล พ.ศ. 2535 เรื่อง “ ภาวะซึมเศร้าของนักเรียนชั้นมัธยมศึกษาตอนปลายในเขตจังหวัดชลบุรี ” ซึ่งมี รศ.ดร. เชิญศักดิ์ โฆวาสินธุ์ ทำหน้าที่อาจารย์ที่ปรึกษาวิทยานิพนธ์หลัก
- 2) แบบวัดความคิดอัตโนมัติสำหรับเด็กอายุ 8-17 ปี (Child’s Automatic Thought Scale : CATS) แปลเป็นภาษาไทยโดย เกศินี สองเมือง ในวิทยานิพนธ์เรื่อง “ ความคิดอัตโนมัติ ทางลบของนักเรียนวัยรุ่นตอนต้น ”
- 3) แบบสอบถามการสนับสนุนทางสังคมประเมินได้จากแบบสอบถามแหล่งประโยชน์ส่วนบุคคล (Personal resource questionnaire [PRQ 2000]) แปลเป็นภาษาไทยโดย ประภาศรี พุ่มมีผล ในวิทยานิพนธ์เรื่อง “ การสนับสนุนทางสังคม ความพร้อมในการดูแล และความเครียดของมารดาเด็กออทิสติก ”

เครื่องมือวิจัยในชุดที่ 1 บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล ได้พิจารณาแล้วไม่ขัดข้องอนุญาตให้ นายสุภชัย ตู้กลาง ใช้เครื่องมือวิจัยดังกล่าวได้ เนื่องจากเป็นการศึกษาวิจัยทางด้านวิชาการ แต่ทั้งนี้ขอได้โปรดระบุให้ชัดเจนด้วยว่าเครื่องมือวิจัยดังกล่าว มาจากวิทยานิพนธ์ของนักศึกษา บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล และมีอาจารย์ท่านใดทำหน้าที่อาจารย์ที่ปรึกษาวิทยานิพนธ์หลัก

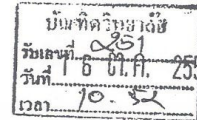
สำหรับเครื่องมือวิจัยชุดที่ 2 และชุดที่ 3 บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล ได้รับแจ้งจาก บัณฑิตวิทยาลัย มหาวิทยาลัยเชียงใหม่ ว่ายินดีอนุญาตให้ นายสุภชัย ตู้กลาง ใช้เครื่องมือวิจัยดังกล่าวได้ ดังรายละเอียดตามเอกสารที่แนบ

จึงเรียนมาเพื่อโปรดทราบ และดำเนินการต่อไปด้วย จักขอบพระคุณยิ่ง



(รองศาสตราจารย์ ดร.พญ.พัชรีย์ เลิศฤทธิ)
รองคณบดีฝ่ายวิชาการ
ปฏิบัติงานแทน คณบดีบัณฑิตวิทยาลัย

สำเนา



ที่ ศร 6393(23)/๒142

บัณฑิตวิทยาลัย มหาวิทยาลัยเชียงใหม่

239 ถนนห้วยแก้ว อำเภอเมือง

จังหวัดเชียงใหม่ 50200

๑ ตุลาคม 2551

เรื่อง อนุญาตให้ใช้เครื่องมือวิจัย

เรียน คณบดีบัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล

อ้างถึง หนังสือ ที่ ศร 0517.02/6626 ลงวันที่ 3 ตุลาคม 2551

ตามที่คณบดีบัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล มีความประสงค์จะขออนุญาตให้ นายสุภชัย ตู่กลาง นักศึกษาหลักสูตรปริญญาโท สาขาจิตวิทยาคลินิก บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล นำเครื่องมือวิจัยในวิทยานิพนธ์ของ เกศินี สองเมือง และ ประภาศรี หุ่นมีผล ไป ใช้ในงานวิจัยนั้น

บัณฑิตวิทยาลัยพิจารณาแล้วไม่ขัดข้อง และยินยอมอนุญาตให้นำเครื่องมือดังกล่าวไปใช้ประโยชน์ ในการศึกษาวิจัยได้

จึงเรียนมาเพื่อโปรดทราบ

ขอแสดงความนับถือ

(รองศาสตราจารย์วารกรณ์ ปิ่นเฉลี)

รองคณบดีฝ่ายวิชาการ ปฏิบัติการแทน

คณบดีบัณฑิตวิทยาลัย

งานบริการการศึกษา

โทร. 053-942423

โทรสาร 053-942435

BIOGRAPHY



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