

Rehabilitation for Depression Among High School Students Using Group Activity Program in Schools in Bangkok, Thailand

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Abstract

The purpose of this research was to study the factors influencing depression among high school students, to study the use of group activity program in rehabilitation for depression among high school students, and to study the level of rehabilitation for depression among high school students in Bangkok, Thailand, before and after the group activity program. This research is a mixed research consisting of 3 steps. The first step is quantitative research, the statistics used in the research were mean, S.D., and multiple regression analysis. The second step is qualitative research, the techniques used were in-depth interview and focus group. The third step is quantitative research, the statistic used was t-test. The study found that 1) Factors influencing depression among high school students consisted of 2 factors, namely individual coping resources ($\beta = 0.510$) and protection ($\beta = 0.360$) with a predictive efficiency coefficient of 65.60% ($R^2 = 0.656$) 2) Using group activity program in rehabilitation for depression among high school students was convenient, simple to implement in schools, activities are suitable for high school students, and the sample group cooperated well during activities 3) The results of comparing the students' depression levels before and after the program showed that, overall and in every aspect, the level of depression in students after the program was lower than their level of depression before the program, and the program was able to rehabilitate all aspects of depression of the high school students, especially the rehabilitation for emotional symptoms in which change is clearly visible.

Keywords: Depression in adolescent, High school student, Rehabilitation depression of students

Background

Depression is a psychiatric disorder common in urban society and the World Health Organization predicts that, in the future, depression will be the second most common disease after ischemic heart disease (Ruangtrakul, 2000; Tuklang et al., 2012) and will be a highly important public health problem, intensifying in all countries around the world (Joseph, 2011; Tuklang et al., 2012). Depression among high school students is a common problem in many countries around the world (Janjatkarn et al., 2019), such as India (Joseph, 2011), USA (Martlin, Molock, & Tebes, 2011), Australia

(Ziaian et al., 2012), and Nigeria (Bella-Awusah et al., 2016), as high school students are adolescent and undergoing several developmental changes, in which adaptation is required to accept those changes (Janjatkarn et al., 2019). For those who have adapted inappropriately or are unable to deal with the changes, it may lead to mental health deviations and may cause depression (Stuart, 2009; Beck, 1967).

In Thailand, there is an increased number of adolescents suffering from depression (Jeerasup et al., 2020). The main contributing factors of depression include predisposing factors, precipitating factors,

perpetuating factors, protective factors, and individual coping resource factors etc. (Stuart, 2009; Jeerasup et al., 2020). The depressive situations that occur in adolescents involve 1) emotional symptoms such as crying, irritation, aggression, burnout 2) showing signs of lack of motivation, such as being oblivious of surroundings and separation from friends 3) symptoms related to thoughts such as pessimism, hopelessness, lack of concentration 4) symptoms of physical well-being such as having physical illnesses, headaches, stomachaches 5) behavioral communication through technology, such as writing goodbye messages or messages about leaving things with a close friend 6) displaying other risky symptoms or behaviors such as engaging in activities at risk of self-injury or death (Kititussaranee et al., 2009).

Depression has a profound effect on learning, understanding various occurrences, deciding whether to do something or not, and affects relationships between family members, friends, and teachers (Kititussaranee et al., 2009). The symptoms can range from decreased interest in studying and working at school, decreased self-confidence, feeling like a failure, and wishing to die which leads to suicide thereafter (Jacobs et al., 2008), making depression the main risk factor for suicide which is the second leading cause of death among adolescents worldwide (Windfuhr et al., 2008; Jeerasup et al., 2020).

For upper secondary education in Thailand to achieve the goal of Thai people possessing learning skills and 21st century skills (Puncreobutr et al., 2018), the research team therefore believed that it is necessary to study rehabilitation for depression among high school students urgently, by studying schools in Bangkok, Thailand. This will be beneficial to educational administrators and stakeholders, contribute to helping students with depression to restore the youth who are the future of the nation.

Research Objectives

1. To study the factors influencing depression among high school students in Bangkok, Thailand
2. To study the use of group activity program in rehabilitation for depression among high school students in Bangkok, Thailand

3. To compare the level of rehabilitation for depression among high school students in Bangkok, Thailand before and after the group activity program

Research Methodology

This research consists of 3 steps.

Step 1: The study of factors influencing depression among high school students

This step is a quantitative research.

The population is high school students from 10 schools in Bangkok, Thailand that have implemented the program to help students with depression, which involves screening and rehabilitation of students for at least 1 semester. There are 1,200 students who voluntarily participated in the program.

Sample group: a randomized sample of high school students participating in the depression assistance program was obtained for screening and rehabilitation in the academic year 2021. The number of students in the sample group was determined using the Krejcie & Morgan table. A total of 291 samples were obtained by stratified sampling, with depressive situations as the criteria for stratification.

The variables studied are:

1. Independent variables are factors affecting depression among high school students.

Factors affecting depression among high school students consists of 5 factors: individual coping resources, predisposing, protective, precipitating, and perpetuating.

2. Dependent variables are depression of high school students, consisting of 6 situational symptoms which are 1) emotional symptoms 2) symptoms of lack of motivation 3) symptoms related to thoughts 4) symptoms of physical well-being 5) behavioral communication through technology 6) other risky symptoms or behaviors.

Research tools and statistics: the tool used was a questionnaire created by the researcher, with a discriminant power of .401-.864 and a reliability factor of .85. The statistics used in the research were mean, S.D., t-test, and multiple regression analysis.

Step 2: The study of the use of group activity program in rehabilitation for depression among high school students.

This step is a qualitative research. The researcher studied the group activity program in rehabilitation for depression among high school students that the research team has determined from the results of the study in step 1 in 3 phases: 1) Providing information on the implementation of the group activity program for rehabilitation of school personnel for trial in small groups of no more than 5 people. 2) Implementation trial of the group activity program in small groups. 3) Improve the results of the trial in small groups and utilize it as the main program in rehabilitation for depression among the sample students. 4) Implement the group activity program for the entire sample group.

The sample group consisted of specialists in psychiatry/community mental health, specialists in adolescent psychology, the people responsible for the school's student support system program, and the teachers responsible for group activities with the sample students.

The researcher collected data in 2 main issues including the convenience of implementing the program, and the suitability of the group activities and the cooperation of the sample groups as follows:

1) In-depth interviews with specialists and the people responsible for the operations, a total 36 people. The sample group was obtained with the snowball method.

2) Focus group discussions with specialists in psychiatry/community mental health, specialists in adolescent psychology, and the people responsible for the operations, a total of 11 people. The sample group was obtained with the specific method.

The collected data were examined using triangulation and used for further analysis.

Step 3: The study of effects of rehabilitation for depression among high school students in Bangkok, Thailand before and after the group activity program

This step is quantitative research, studying the effects of rehabilitation for depression among high school students by comparing the students' depression levels before and after using the group activity

program for rehabilitation for depression among high school students.

The population is high school students from 10 schools in Bangkok, Thailand that have implemented the program to help students with depression, which involves screening and rehabilitation of students. A total of 1,200 students voluntarily participated in the program. The sample group was randomized from the study population in the academic year 2021. The number of students in the sample group was determined using the Krejcie & Morgan table. A total of 291 samples were obtained by stratified sampling, with depressive situations as the criteria for stratification.

The variables studied are:

Independent variables are the duration of the study which includes before and after using the group activity program in rehabilitation for depression among high school students.

Dependent variables are depression of high school students, consisting of 6 situational symptoms which are 1) emotional symptoms 2) symptoms of lack of motivation 3) symptoms related to thoughts 4) symptoms of physical well-being 5) behavioral communication through technology 6) other risky symptoms or behaviors.

Research tools and statistics: the tool used was a questionnaire created by the researcher, with a discriminant power of .305-.817 and a reliability factor of .89. The statistic used was paired t-test.

The duration of study for all 3 steps is January 2021– December 2021.

Research Findings

The findings of the study are as follows:

Step 1: The study of factors influencing depression among high school students

The findings of the study in step 1 are as follows:

The study of factors affecting depression among high school students in Bangkok, Thailand found that the students in the sample group are associated with all 5 depression factors: individual coping resources, predisposing, protective, precipitating, and perpetuating.

Factors influencing depression among high school students in Bangkok, Thailand

The study results of factors influencing depression among high school

students using multiple regression analysis as shown in Table 1.

Table 1 The results of multiple regression analysis of factors influencing depression among high school students.

Independent Variable (Predictor)	b	Beta	t	p
Individual coping resource factor	.485	.510	10.106	.000
Protective factor	.397	.360	7.130	.026
Constant	.489		2.774	.000
R = 0.810 R ² = 0.656 F = 274.924 p value <0.000				

From Table 1, the results of the multiple regression analysis showed that the factors influencing depression among students positively, statistically significant at the .01 level, comprises of 2 factors: individual coping resources factor ($\beta = 0.510$) and protective factor ($\beta = 0.360$). The other 3 factors, including predisposing, precipitating, and perpetuating, have no influence on depression among high school students in Bangkok, Thailand.

The study results found that the value $R^2 = 0.656$ indicates that the predictive efficiency coefficient for factors influencing depression among students which consists of individual coping resources and protective factors are 65.60%, the remaining 34.40% resulted from other variables not included in the study.

From the statistical examination of the coefficients of the 2 independent variables, a linear equation derived from the multiple regression analysis can be written to predict depression among high school students in Bangkok.

Depression of Student = .489 + .485 (Coping Resources) + .397 (Protection)

The equation can be written in standard score form as:

$$Z_{\text{Depression of Student}} = .510 Z_{\text{Coping Resources}} + .360 Z_{\text{Protection}}$$

The levels of influence of individual coping resource factor on depression of students

The levels of influence of individual coping resource factor on depression among high school students in Bangkok, Thailand are shown in Table 2.

Table 2 The levels of influence of individual coping resource factor on depression among high school students (N=291)

Aspect	mean	S.D.	Level of Influence
There are situations that require problem solving	4.58	.4948	Very high
Having an attitude towards problems as something that needs to be solved	4.56	.4968	Very high
There are knowledgeable people to give advice on issues that need to be solved	4.59	.4918	Very high
Assessing the situation and assessing the ability to face each problem	4.51	.5007	Very high
Identifying the causes and coping strategies of others from digital media	4.59	.4918	Very high
Learn to deal with problems faced in your daily life by yourself	4.48	.5006	High
Overall coping resources	4.55	.3695	Very high

From Table 2, it was found that the overall individual coping resource factor has very high influence on depression among students. When considering each aspect, it was found that the resources of knowledgeable people giving advice on issues that need to be solved, identifying the causes and coping strategies of others from digital media, situations requiring problem solving, having an attitude towards problems as something that needs to be solved, and assessing the situation and assessing the ability to face each problem

have very high level of influence (from most to least respectively). For the aspect of learning to deal with problems faced in your daily life by yourself, the level of influence is high.

The levels of influence of protective factor on depression of students

The levels of influence of protective factor on depression among high school students in Bangkok, Thailand are shown in Table 3.

Table 3 The levels of influence of protective factor on depression among high school students (N=291)

Aspect	mean	S.D.	Level of Influence
Protection from friends: no conflicts with friends	4.45	.4980	High
Protection from siblings in the family: receiving encouragement from siblings	4.50	.5008	High
Protection from relatives/people around you: no pressure from people around you	4.47	.4997	High
Protection from school: a system in place to supervise, monitor and coordinate with stakeholders	4.51	.5008	Very high
Protection from parents: understanding the situation and cooperating to solve problems	4.59	.4931	Very high
Protection from a mentor: understanding the situation and cooperating to help/solve problems	4.55	.4980	Very high
Overall protective factor	4.51	.3187	Very high

From Table 3, it was found that the overall protective factor has a very high influence on depression among high school students. When considering each aspect, protection from parents: understanding the situation and cooperating to solve problems, protection from a mentor: understanding the situation and cooperating to help/solve problems and protection from school: a system in place to supervise, monitor and coordinate with stakeholders have very high level of influence (from most to least respectively). For the aspects of protection from siblings in the family: receiving encouragement from siblings, protection from relatives/people around you: no pressure from people around you, and protection from friends: no conflicts with friends, the level of influence is high (from most to least respectively).

Step 2: The study of the use of group activities in rehabilitation for depression among high school students.

This step is qualitative research. To study the use of group activity program in

rehabilitation for depression among high school students in Bangkok, Thailand, as determined by the researcher from the study in step 1 with those who implemented the program.

In this stage, the researcher studied the group activity program in rehabilitation for depression among high school students, as determined by the research team, in the issues of the convenience of implementing the program, and the suitability of the activities and the cooperation of the sample groups.

The results of the in-depth interviews and focus group discussions were consistent as follows:

The convenience of implementing the group activity program in rehabilitation for depression among high school students found that the implementation went according to the specified period of time, including the number of times to complete the activity, the duration of each activity, and the collection of data obtained before the activities, during the activities, and after the activities. As well as the program was not difficult to use and was

flexible and convenient to implement for high school students.

The suitability of the group activities and the cooperation of the sample groups in group activities for rehabilitation for depression among students found that the 6 types of group activities, consisting of activities related to emotional symptoms, activities related to symptoms of lack of motivation, activities related to the symptoms related to thoughts, activities related to behavioral communication through technology, had a very high suitability for students and a very high cooperation from the students in the activities. For activities related to physical well-being, and activities related to other expressive behaviors or other risky behaviors, it was found that the activities had a high suitability for students and a high cooperation from the students in the activities. As well as there were no problems and

difficulties in using the group activity program in rehabilitation for depression among high school students, and the activities did not cause any concerns to the sample group, and there were no sample groups that requested to cancel the activities according to the specified program.

Step 3: The study of effects of rehabilitation for depression among high school students in Bangkok, Thailand before and after the group activity program.

This step is a quantitative research, studying the effects of rehabilitation for depression among high school students by comparing the students' depression levels before and after using the group activity program for rehabilitation for depression among high school students. The results of the comparison of students' depression levels are shown in Table 4.

Table 4 The comparison of depression levels of high school students before and after rehabilitation for depression (N=291)

Aspect	Before Rehabilitation		After Rehabilitation		t	p
	Mean	S.D.	Mean	S.D.		
Emotional symptoms	4.5842	.4937	3.9038	.5792	15.761**	.000
Symptoms of lack of motivation	4.4674	.4997	4.0790	.5355	9.300**	.000
Symptoms related to thoughts	4.4948	.5008	3.9966	.5477	11.562**	.000
Symptoms of physical well-being	4.4639	.4995	4.0103	.5722	10.163**	.000
Behavioral communication through technology	4.4192	.4942	3.8797	.5078	12.618**	.000
Other risky symptoms or behaviors	4.5086	.5007	3.9072	.5202	14.276**	.000
Overall depression	4.4897	.35191	3.9624	.2237	21.627**	.000

* p< .05 ** p< .01

From Table 4, the results of the comparison of students' depression levels before and after using the group activity program for rehabilitation for depression among high school students found that in the overall depression level of students after using the program, the students had lower levels of depression than before using the program, statistically significant at the .01 level. When considering each aspect, it was found that in

all 6 aspects, the depression level of students after using the program were lower than before using the program, statistically significant at the .01 level.

That is, the use of the group activity program can rehabilitate depression among high school students, in overall depressive situation and in each of the 6 aspects: emotional symptoms, symptoms of lack of motivation, symptoms related to thoughts,

symptoms of physical well-being, behavioral communication through technology, and other risky symptoms or behaviors.

However, when considering the average student's depression level, it was found that the average, both overall and in each aspect, after using the program was still at a high level. That is, students still had high levels of depression before using the program and after using the program, except for the emotional symptom aspect, where students had a change in depression levels, from a very high depression level before using the program, to a high depression level after using the program.

Conclusion

The results of the study can be summarized as follows:

1. Factors influencing depression among high school students in Bangkok, Thailand

Factors influencing depression among high school students comprises of 2 factors: individual coping resource factor ($\beta = 0.510$) and protective factor ($\beta = 0.360$). The other 3 factors, including predisposing, precipitating, and perpetuating, have no influence on depression among high school students. The predictive efficiency is 65.60%, the remaining 34.40% resulted from other variables not included in the study.

The linear equation derived from the multiple regression analysis to predict depression among high school students in Bangkok can be written as:

$$\text{Depression of Student} = .489 + .485 (\text{Coping Resources}) + .397 (\text{Protection})$$

The equation in standard score form can be written as:

$$Z_{\text{Depression of Student}} = .510 Z_{\text{Coping Resources}} + .360 Z_{\text{Protection}}$$

The level of influence of the overall individual coping resource factor on depression among students is very high. When considering each aspect, it was found that knowledgeable people giving advice, identifying the causes and coping strategies, situations requiring problem solving, having a

good attitude towards problems, and assessing the situation and ability to face problems have very high level of influence. For the aspect of learning to deal with problems by yourself, the level of influence is high.

In addition, it was found that the overall protective factor has a very high level of influence on depression among students. When considering each aspect, protection from parents, protection from a mentor, and protection from school have very high level of influence. For the aspects of protection from siblings in the family, protection from relatives/people around you, and protection from friends, the level of influence is high.

2. The use of the group activity program in rehabilitation for depression among high school students in Bangkok, Thailand.

The effect of using the group activity program in rehabilitation for depression among high school students with the program users through in-depth interviews and focus group discussions, the results were consistent as follows:

The group activity program for rehabilitation for depression is convenient to implement in operations and can be executed according to the specified procedure. The program is simple, flexible, and convenient to use with high school students.

The group activity program for rehabilitation for depression, the activities were suitable for high school students and have received cooperation from the sample group in the activities. There were no problems and difficulties in using the program, and there were no sample groups that requested to cancel the activities according to the program as determined by the researcher.

3. The level of rehabilitation for depression among high school students in Bangkok, Thailand, before and after using the group activity program.

A study on the effects of rehabilitation for depression among high school students from the comparison of the students' depression levels before and after using the group activity program found that the overall depression of students after using the program was lower than it was before using the program, and when considering each aspect, it was found that the 6 aspects of depression of the students after using the

program was lower than it was before using the program in all aspects.

That is, the use of the group activity program can rehabilitate depression among high school students, overall and in each of the 6 aspects: emotional symptoms, symptoms of lack of motivation, symptoms related to thoughts, symptoms of physical well-being, behavioral communication through technology, and other risky symptoms or behaviors. However, the clearest rehabilitation result from the use of the program is the rehabilitation of depression in the presence of emotional symptoms.

Discussion

The study found that the factors influencing depression among high school students are individual coping resource factor and protective factor, which is consistent with the concept of Ziaian et al. (2012) stating that adolescents with low problem-solving skills have a chance of developing mental health problems or depression, and the concept of Kititussaranee et al., (2009) which states that when adolescents are depressed, they will express emotional symptoms, symptoms of lack of motivation, symptoms related to thoughts, physical symptoms, behavioral communication through technology and other risky symptoms or behaviors. Therefore, when eliminating the factors influencing depression, adolescents will be able to rehabilitate (Stuart, 2009; Jeerasup et al., 2020). When the group activity program can be used to rehabilitate depression among high school students and reduce the factors influencing depression, the level of depression among high school students both overall and in all 6 aspects will decrease.

Recommendations

Recommendations for the application of the research results

From the study which found that the factors influencing depression among high school students are the individual coping resource factors and protective factors. That is, although in different situations in a school where there are still predisposing factors, precipitating factors, and perpetuating factors, there will be no influence on the students' depression. However, schools need to create

individual coping resources, namely having knowledgeable people to give advice, developing skills to identify causes and coping strategies, arranging situations requiring problem solving, developing a good attitude towards problems, and developing skills in assessing situations and ability to face problems. As well as schools must support and encourage the use of important protective factors for students including protection from parents, protection from mentors, and protection from the school. Therefore, students will be able to reduce their depression levels.

From the study which found that the group activity program in rehabilitation of depression among high school students is convenient and simple to implement, the activities were suitable for high school students and have received cooperation from the sample group in the activities. Therefore, the program users should be developed to be able to transfer techniques in using the group activity program in rehabilitation of depression among high school students to other schools that are interested.

From the study which found that the group activity program can rehabilitate all aspects of depression among high school students, especially in the rehabilitation of emotional symptoms where there were clear results of change, which were results from using the program for a period of 1 year. Therefore, the people responsible for the program to help students, teachers, and school administrators, should continuously develop the program to be suitable for the context of each school, to be able to rehabilitate the depression of high school students sustainably.

Recommendations for further research

The study found that the predictive efficiency coefficient is 65.60% and the remaining 34.40% resulted from other variables not included in the study. Therefore, other factors further affecting depression among high school students should be studied to increase the predictive efficiency further.

The study also found that group activity programs can rehabilitate depression among high school students in all aspects, however, this research was conducted in the Bangkok area in which the schools studied were equipped for group activities. Therefore, further research should be conducted in

schools affiliated with or in other provinces to further confirm the results of the study.

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