

# The effectiveness of cognitive behavior therapy group counseling using problem solving techniques to improve the resilience of first-year students at university

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## Abstract

Students experience many problems and various demands. Especially first-year students who are just adapting to the lecture environment. For that, of course, it is necessary to prevent mental illness and increase positive things. This research aims to increase the resilience of first-year students. The research method used is a repetitive measure with a pretest and multiple posttest design with a sample of 7 people selected purposively from 19 first-year students University who have low resilience. The results of the analysis using repeated measures showed that group counseling cognitive behavior therapy using problem-solving techniques was effective in increasing resilience ( $F(2,12)=460.620$ ;  $p<0.01$ ).

## INTRODUCTION

The individual has the goal of a prosperous, balanced, and meaningful life (Situmorang, 2021a, 2021b). For this reason, of course it is necessary to prevent mental illness and do more things that will have a positive impact on oneself. In this case, one of the areas of positive psychology that needs to be improved is resilience. An individual needs to increase the positive things in himself that will have an impact on his/her life.

Resilience is the ability to endure and adapt when things go wrong. In living life, of course, everyone has challenges and problems that occur (Reivich & Shatté, 2002). This has a destructive impact if an individual does not have the resilience to deal with it. Other studies also mention that the resilience factor can help an individual take responsibility in dealing with his/her problems (Izadinia et al., 2010). Based on this, resilience is vital for an individual because if an individual can increase their resilience, they will be able to overcome most of the problems they face.

The same is felt by first-year students who are experiencing the transition from adolescence to early adulthood. When an individual enters the world of lectures, they will certainly experience various changes, both caused by differences in the characteristics of education in high school and college and differences in social relations, especially for those who have a certain religious value base (Pangestu et al., 2022). Furthermore, resilience can also be influenced by problems that occur to students on campus, such as not being able to adapt, changes in the way they learn which can make them stressed (Amelia et al., 2014). From this explanation, resilience needs to be increased, especially in first year students who are facing problems and experiencing stress.

Stress, according to Greenberg (2011), is not only annoying but downright unhealthy, and stress can lead to other negative consequences such as poor relationships with loved ones or low academic achievement. First year college students experience anxiety due to the lifestyle change from high school to college. Problems such as lifestyle changes, excessive tasks, financial management, friendship, love, sex, sexually transmitted infections/HIV cause this to happen (Greenberg, 2011).

A survey conducted on 300,000 first year students at several universities stated that they tended to show stress as a reaction to the transition from high school to college (Santröck, 2007). Psychological stress is a significant concern during the transition to University because of some of the changes students face in their lives' personal, social, and emotional aspects (Pittman & Richmond, 2008).

In addition to academic demands, students experience stress and challenges such as financial and living arrangements, the formation of new social networks, and adapting to the mint family and community roles (Hiester et al., 2009). Another study also stated that during the adjustment process at University, students experienced several unwanted things such as homesickness, anxiety, depression, more emotionality, failure, and dropping out of school, resulting in stress felt by students (Rahat & Ilhan, 2016).

Researchers conducted an interview with one of the Riau University lecturers who concluded that first year students experienced pressures that caused stress and affected the student's learning process. Students become more rigid, cannot divide their time, are often absent due to returning home, have difficulty socializing, are not active in the lecture process, cannot adapt to their living environment or campus environment, and so on. Changes in the educational process are also a challenge. Students are required to be independent both in academic information and in the learning process. In this situation, it is undoubtedly crucial that students have and can increase their resilience.

### The Preliminary Study was Also Carried Out by Researchers On First-Year Students at University

Based on these interviews, it can be concluded that students experience problems such as adaptation to the environment where they live and campus, adjustment to the learning process, friendship problems, homesickness, financial arrangements, and eating patterns. The difficulties experienced by these students make them stressful, so it has a destructive impact on the students. This also affects the lecture process, which results in students not being focused and often being absent from attendance. From this explanation, one thing that students need to improve is resilience.

Research conducted by [Yakub and Liza \(2015\)](#) stated that the resilience of first year students was lower than that of final year students who were writing their theses. Because basically, first-year students are in a developmental period and are undergoing a transition from adolescence to early adulthood. New students face various obstacles and challenges that require resilience ([Widuri, 2012](#)). Students who have high resilience will tend to show a positive attitude in dealing with obstacles. Individuals with resilience will tend to show positive emotions in the face of various events ([Arce et al., 2008](#)).

Individuals who have high resilience will influence health physically-mentally and determine success in relationships and interacting with the environment. These are fundamental factors for achieving life and happiness, and success ([Reivich & Shatté, 2002](#)). To achieve this, of course, students must overcome the obstacles and challenges that occur to them. According to [Wang \(2009\)](#), resilience is a crucial variable related to adaptation to the university environment. Based on the description above, intervention efforts are needed to improve student resilience. The study results stated that intervention was needed to help students who were experiencing stress ([Johari & Hassim, 2009](#)). Interventions need to be given to increase resilience in first-year students. Research conducted by [Loh and Thorsteinsson \(2013\)](#) states that future research is to dig deeper into factors that can increase resilience to problems.

Interventions can be carried out with various approaches, one of which is the cognitive behavior therapy approach ([Fadhli & Situmorang, 2021](#); [Situmorang, 2021c](#)). According to [Willert et al. \(2009\)](#), cognitive behavior therapy is behavior-oriented, helping students develop self-awareness, reduce negative thoughts, increase self-esteem, develop stress management skills to be more effective, and cope with various mental illness syndromes. CBT approach can help first-year students who are experiencing stress or who are facing problems.

[Craig and Austin \(2016\)](#) state that resilience will be responsive to CBT because it involves skill-based strategies, which will be able to expand the list of skills that can increase resilience if learned and practiced. Other studies suggest that other factors are needed in CBT interventions that have an impact on resilience; these findings indicate that strategies that include group and individual CBT are not effective for increasing resilience ([Guest et al., 2015](#)). Based on this, through this intervention, other factors are needed, one of which is the technique in the CBT approach, namely problem-solving techniques.

Problem-solving techniques are cognitive-behavioral strategies that teach individuals how to deal with problems in their daily lives. Their primary purpose is to identify the most effective solutions to problems and provide systematic training in cognitive and behavioral skills so that clients can apply them and cope effectively. Effective with various issues ([Corey, 2012](#)). Research conducted by [Coşkun et al. \(2014\)](#) shows that the level of student resilience and problem-solving skills is at an average level; therefore, success in completing the academic stage can be considered an indicator of student resilience. Based on this explanation, we can use this problem-solving technique to improve first-year students' coping skills and resilience.

Interventions with the CBT approach using problem-solving techniques to improve the resilience of first-year students can be provided through group counseling services. Group counseling programs can provide individuals with the types of group experiences that help them learn to function effectively, develop a tolerance for stress and anxiety, and find satisfaction in working and living with others ([Corey, 2012](#)). Group counseling can be used as an intervention service with a CBT approach using PS techniques to increase the resilience of first year students. According to the researchers, based on the explanation above, intervention should be given to first-year students experiencing stress or facing problems through group counseling of cognitive behavior therapy using problem-solving techniques to increase resilience.

## METHODS

This research employs a repeated measures design with a pre-test and multiple post-tests. The procedure involves administering a pre-test, followed by an intervention and two subsequent post-tests. The group cognitive behavior therapy service using problem-solving techniques is conducted in four sessions, with each session lasting 2x50 minutes weekly. After three weeks, the group members are given a second post-test to assess their consistency in the research. This aims to allow the researcher to gather multiple data points over time to study the rate of change in the treatment provided. All participants in one

group undergo all experimental treatments, with each group serving as its control. Before conducting the research, all respondents provided consent. The research sample consists of seven individuals selected purposively from 19 first-year students of the Guidance and Counseling Faculty of Teacher Training and Education at Riau University, who have low and very low resilience. For more details, refer to figure 1.

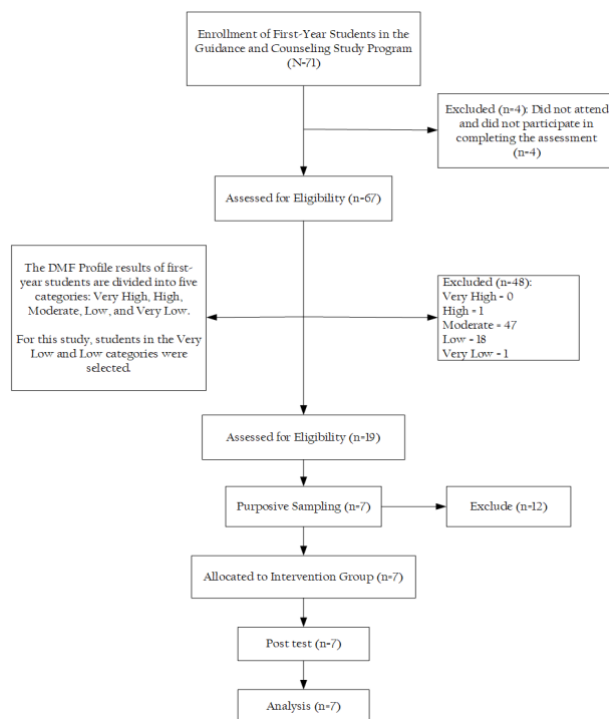


Figure 1. Research Flow

Group counseling intervention using cognitive behavior therapy with problem-solving techniques is used to enhance the resilience of first-year students. This research involves several stages: (1) Initial Stage: Introduction, explanation of the counseling process and objectives, explanation of norms and rules to be followed during the counseling process, and other information related to the group counseling process. (2) Transition Stage: The group atmosphere forms, and group dynamics begin to develop. Group activities should be directed toward group goals. (3) Working Stage: Group members are asked to assess and define problems, set goals, seek and consider various solutions, make decisions, implement solutions, and evaluate them. (4) Final Stage: Evaluate the activities conducted and conclude the process. These stages are delivered in four sessions according to the needs of this research. After three weeks, group members are given a second post-test to assess their consistency in the research. The data from these tests are then processed to compare with the pre-test and second post-test results.

The data collection technique in this study uses the Design My Future (DMF) scale developed by Di Maggio et al. (2016). At this scale, researchers carry out equivalence by carrying out back translation processes, expert validation, and instrument testing. Expert validation is carried out by grammar experts and experts who are experts in research variables. The instrument test results for all question items were declared valid ( $r_{xy}$ : 0.447-0.771), with a reliability of 0.731. The first-year student resilience data obtained was then analyzed using a one-way ANOVA test for repeated measurements.

Table 1. Results of the Distribution of the Design My Future Scale for First-Year University Students

Interval	Resilience	
	f	%
Very high	-	-
High	1	1.5
Moderate	47	70
Low	18	27
Very low	1	1.5
Total	67	100

## RESULTS AND DISCUSSIONS

### *Resilience Conditions for First-Year University Students*

In this study, the resilience of first-year university students can be seen from the results of the design of my future scale. The number of first-year students of the University is 67 people. Here is a description of the resilience of the University's first-year students.

In table 1. The results of the distribution of the design my future for first-year university students that have been carried out are 1 student or 1.5% in the very low category, 18 students or 27% in the low category, 47 students or 70% in the moderate category. Furthermore, 1 student or 1.5% is in the high category. In the very high category, there are no students. So it can be said that 19 students have low resilience. In this study, 7 students were taken who had low resilience categories.

### Normality test

A normality test is used to determine whether the distribution of research data is normal or not. The following are the results of the normality test for the first-year students' resilience.

Table 2. Normality Test Results of First-Year University Student Resilience

Tests of Normality	Statistic	Kolmogorov-Smirnov <sup>a</sup>	
		df	Sig.
Pre-test	.191	7	.200*
Post-test 1	.332	7	.019
Post-test 2	.214	7	.200*

Based on the table above, it can be seen that the p-value of resilience for pretest is 0.191, posttest1 is 0.332, and posttest2 is 0.214, where the p-value is > 0.05. From this explanation, it can be concluded that the data is normally distributed.

### Sphericity Test

The sphericity test can be equated with the assumption of homogeneity of variance among the ANOVA groups. Because the repeated measures were not measured independently, there is an additional prerequisite, namely Sphericity, meaning that there is a relationship between pairs of repeated observations (Andy Field, 2013). Below are the results of the sphericity test for the resilience of the first-year students.

Table 3. Sphericity Resilience Test Results for First-Year University Students

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.
Resilience	.941	.305	2	.859

Based on the table above, it can be seen that the value of Approx. Chi-Square for resilience is 3.05 and sig 0.859 > from 0.05, so it can be concluded that the Sphericity requirement is met.

### Hypothesis Testing

The following are the results of hypothesis testing for the resilience of first-year University students.

Table 4. Results of the First Year University Students' Resilience Hypothesis Testing

Hypothesis Testing	Pre-test	Post-test 1	Post-test 2	F	p
Resilience	Mean 16.71	28.29	30	(2.12) = 460.620	0.001
	SD 1.799	1.799	1.633		

Table 5. Pairwise Comparison of Resilience of First-Year University Students

Pairwise Comparisons	Comparison	Mean Difference	Std. Error	Sig. <sup>b</sup>
Resilience	Pre-test vs. Post-test 1	-11.571*	.481	.000
	Pre-test vs. Post-test 2	-13.286*	.421	.000
	Post-test vs. Post-test 2	-1.714	.522	.050

Based on the table above, it can be seen that for resilience, the average value for pre-test is 16.71, post-test 1 is 28.29, and post-test 2 is 30. From the results of the average value, it can be concluded that there is an increase in the resilience of first-year University students. From the results of the Repeated Measures ANOVA test on the test of within-subjects effects, it can be concluded that there is a statistically significant increase in the resilience of first-year University students after the group counseling service for cognitive behavior therapy using problem-solving techniques. Furthermore, to see significant differences in the measurements of this study, it can be seen in the following table.

In the table above, it can be seen the significance of the research measurements for each pre-test, post-test 1 and post-test 2 administration. Based on the Repeated Measures ANOVA that has been done, it can be concluded that  $H_a$  is significantly accepted and  $H_o$  is rejected. Based on the description of the results of the graph above, it can be seen that the treatment given by counselors using cognitive behavior therapy group counseling services using problem-solving techniques to counsees has increased. Through this group counseling activity, the counselee or group member can overcome problems that are considered capable of causing stress and become a burden on him which aims to make the individual independent and make life better and prosperous.

The research results found that the group counseling of cognitive behavior therapy using problem-solving techniques is effective on the resilience of first-year students. The results of this study are also following related research. Research conducted by Russo-Netzer et al. (2016) cognitive behavior therapy can help clients build resilience and make meaningful life plans, learn from experiences independent of problems, and increase positive emotions. Willert et al. (2009) stated that cognitive behavior therapy is behavior-oriented, helping students develop self-awareness, reduce negative thoughts, increase self-esteem, develop stress management skills to be more effective, and cope with various mental illness syndromes. This cognitive behavior therapy approach is effectively used for resilience.

To achieve goals at University, one must succeed in many challenging stages. Research conducted by Coşkun et al. (2014) shows that student resilience and problem-solving skills are at an average level. Sood et al. (2014) concluded that cognitive behavior therapy group counseling programs could help reduce interpersonal sensitivity dysfunctional automatic thoughts and increase effective coping.

### Suggestions

For further researchers in the field of pastoral counseling, especially those who are concerned with students, they are expected to be able to conduct further research by comparing two or more groups so that the conclusions that can be drawn can be definitive rather than suggestive.

### Implications

The results of this study can be the main input for counselors in the field of pastoral care & counseling who work in each University. Especially for those who are constantly dealing with students, the use of CBT interventions against them can also be effective in increasing their resilience.

### Direction of Future Research

The results of this study can be used as a reference for further, more advanced research. The direction of future research on this topic at various Universities is very important, especially for first year students. In addition, this study can be an initial description of the resilience condition of students. Furthermore, further research needs to be done to compare the results of this CBT intervention to students who have different religions, then discuss them based on their respective values. So that it is clear whether there are fundamental differences between different religions, or even religious background has no contribution at all to CBT treatment to increase a person's resilience. Therefore, it is very important to carry out further research related to this comparison, so that it can provide new ground for the establishment of this theory.

### CONCLUSIONS

This study was conducted to see the effectiveness of cognitive behavior therapy group counseling services using problem-solving techniques in increasing the resilience of first-year students at the University. The results of the research that have been carried out show that cognitive behavior therapy group counseling services using problem-solving techniques are significantly effective in increasing the resilience of first-year students. This is based on the pre-test and post-test results on the design of DMF scale before and after the service is provided. Furthermore, the results of the *Pairwise Comparison Coping Skills* of the first-year students at University also show the significance of its effectiveness. This study is very limited in the selection of one group without a comparison group. Thus, any conclusions are suggestive rather than definitive possibilities. In addition, through further research, innovative and different findings can be obtained by comparing two or more groups to enrich the latest findings of this pastoral counseling discipline.

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