Quantitative Research and Analysis Journal
Vollum 1, Number 1, 2026, Pages 36-46
https://journal.nimsyapublisher.id/index.php/qraj
ISSN: 3164-8843 DOI: https://doi.org/10.68078/tpbfxf43

Effectiveness of Reality Group Counseling in Reducing Academic Stress, Increasing Self-Esteem, and Improving Emotion Regulation of High School Students

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Article Information

Submitted May 04, 2026
Revised June 23, 2026
Accepted June 30, 2026

Keywords
Academic Stress;
Emotion Regulation;
Reality Group Counseling;
Self-Esteem.

Abstract

Academic stress, low self-esteem, and emotion dysregulation were common psychological problems experienced by high school students and negatively impacted well-being and academic achievement. This study aimed to examine the effectiveness of reality group counseling in reducing academic stress, increasing self-esteem, and improving emotion regulation among high school students. The method used was a true experiment with a pretest-posttest control group design. The sample consisted of 64 eleventh-grade students of SMAN 3 Klaten who had high academic stress, low self-esteem, and low emotion regulation, selected using purposive sampling. Students were then randomly assigned to an experimental group (n = 32) receiving reality group counseling for 8 sessions (2 sessions/week) and a control group (n = 32) with no intervention. The research instruments included the Academic Stress Scale (15 items, α = 0.89), Rosenberg Self-Esteem Scale (10 items, α = 0.87), and Emotion Regulation Scale (20 items, α = 0.91). Data were analyzed using MANOVA with SPSS 26. The results showed that there was a significant multivariate difference between experimental and control groups on the three dependent variables (*Wilks' Lambda* = 0.32; $F(3,60) = 42.56$; $p < 0.001$; $\eta^2 = 0.68$). Follow-up tests indicated that reality group counseling effectively reduced academic stress ($F = 38.45$; $p < 0.001$; $\eta^2 = 0.39$), increased self-esteem ($F = 45.21$; $p < 0.001$; $\eta^2 = 0.43$), and improved emotion regulation ($F = 52.34$; $p < 0.001$; $\eta^2 = 0.47$) compared to the control group. These findings indicated that reality group counseling was an effective intervention for addressing psychological problems in high school students simultaneously.

To cite this article: Irbathy, S. A. (2026). Effectiveness of Reality Group Counseling in Reducing Academic Stress, Increasing Self-Esteem, and Improving Emotion Regulation of High School Students. *Quantitative Research and Analysis Journal*, *1*(1). https://doi.org/10.68078/tpbfxf43

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INTRODUCTION

Adolescence, particularly high school students, constituted a period vulnerable to various psychological problems. The transition from childhood to adulthood, increased academic burden, pressure to choose career paths, and complex social dynamics often triggered stress, anxiety, and mood disorders. Data from the Indonesian Ministry of Health (2024) showed that the prevalence of emotional mental disorders among adolescents aged 15-19 years reached 15.5%, up from 12.8% in 2020. Of this figure, academic stress was the main complaint (72%), followed by low self-esteem (58%) and difficulty managing emotions (63%). In Klaten City, a survey by the Health Office (2024) revealed that 34% of high school students experienced severe stress impacting achievement and physical health. This phenomenon required effective and efficient psychological intervention.

Preliminary observations conducted by the researcher at SMAN 3 Klaten in October 2025 involved interviews with guidance and counseling teachers and initial screening of 210 eleventh-grade students. Screening results showed that 47% of students had academic stress scores above the threshold (based on the Academic Stress Scale), 42% had low self-esteem (Rosenberg Scale), and 38% had low emotion regulation (DERS). Furthermore, guidance and counseling teachers reported that students frequently complained of headaches, sleep difficulties, and fatigue before exams; some students showed withdrawal behaviors, irritability, and even cases of self-harm were found. Unfortunately, the available individual counseling services could only reach 12% of students with problems due to time and counselor limitations. Therefore, an effective group intervention model was needed to address simultaneous problems.

Reality group counseling was developed from William Glasser's reality theory (1965, 1998), emphasizing choice, responsibility, and focus on the present. This approach centered on the concept that maladaptive behavior stemmed from individuals' failure to meet basic needs for love, power, freedom, and fun (Glasser, 1998). In a group setting, students were invited to evaluate their current behavior, plan more effective actions, and commit to change (Wubbolding, 2017). A meta-analysis study by Kim & Hwang (2023) reviewing 22 studies (2015-2022) found that reality group counseling had medium to large effects (Hedges' g = 0.67) on adolescents' psychological well-being. However, most studies only tested effects on one dependent variable, not simultaneous effects on stress, self-esteem, and emotion regulation.

Academic stress was defined as an unpleasant physiological and psychological response to academic demands exceeding students' abilities and resources (Pulido-Martos et al., 2022). Prolonged academic stress could lead to burnout, anxiety, depression, and even decreased immunity. Research by Sari et al. (2024) on 500 high school students in Yogyakarta found that the main sources of stress were grade pressure (78%), heavy workload (73%), and fear of exam failure (69%). Group-based interventions teaching stress management through cognitive restructuring and action planning, such as reality

counseling, had proven more effective than lectures (Fatimah & Nugroho, 2025).

Self-esteem was the global self-evaluation reflecting acceptance and appreciation of oneself (Rosenberg, 1965). Low self-esteem in adolescents correlated with withdrawal, aggression, and risk of eating disorders (Orth & Robins, 2022). Research by Mulia et al. (2025) in Islamic boarding schools showed that low self-esteem could be improved through group activities providing positive feedback and affiliation reinforcement. Reality group counseling, with its emphasis on accepting responsibility and acknowledging personal choices, was believed to increase self-esteem because students learned they had control over their lives and could make positive changes (Wubbolding, 2017).

Emotion regulation referred to individuals' ability to monitor, evaluate, and modify emotional responses to achieve goals (Gross, 2015). Adolescents with poor emotion regulation tended to experience anger outbursts, impulsive behavior, and difficulties in social relationships. In academic contexts, adaptive emotion regulation (such as cognitive reappraisal) helped students remain calm during exams and recover from failure (Zhao et al. 2025). An experimental study by Zhou et al. (2024) using group-based emotion regulation training showed that 6-week interventions could improve reappraisal scores and decrease expressive suppression. Reality group counseling, although not explicitly teaching emotion regulation techniques, helped students identify unpleasant emotions and choose more adaptive responses based on reality assessment.

Adolescence was a developmental period characterized by various academic, social, and emotional demands that could affect students' psychological well-being. Pressure to achieve high academic performance often created academic stress, while challenges in identity formation could affect self-esteem and emotion regulation abilities. These three aspects were closely interrelated because high levels of academic stress could lower self-esteem and inhibit individuals' ability to regulate emotions adaptively. Therefore, interventions were needed that not only focused on one psychological aspect but could help students address multiple problems simultaneously.

One approach with potential effectiveness was reality group counseling, grounded in Choice Theory and reality therapy developed by Glasser. This approach emphasized personal responsibility, effective decision-making, and individuals' ability to evaluate their behavior in meeting psychological needs healthily. Several studies had reported that reality group counseling could help reduce stress, increase self-esteem, and improve emotion regulation abilities. However, studies examining the effectiveness of this intervention still showed several limitations. Most studies only focused on one outcome variable or tested two variables separately, thus not providing a comprehensive picture of the intervention's impact on various interrelated psychological aspects. Additionally, many studies used pre-test post-test designs without adequate control groups, leaving internal validity vulnerable to external factors such as

maturation and participant experiences during the research period. From the data analysis perspective, the use of simple statistical tests also had not fully considered the interrelationships among the dependent variables studied.

Based on these conditions, this study was designed to evaluate the effectiveness of reality group counseling on academic stress, self-esteem, and emotion regulation simultaneously through a true experimental design involving both experimental and control groups with random assignment. The intervention used a reality group counseling module developed based on Glasser's theory and validated by experts. In addition to testing the intervention's effect on all three variables simultaneously using multivariate analysis (MANOVA), this study also analyzed the effect size for each variable to identify which psychological aspect benefited most from reality group counseling.

With this approach, this study was expected to enrich empirical evidence on the effectiveness of reality group counseling in the context of guidance and counseling services in secondary schools and provide a stronger basis for school counselors in selecting interventions capable of addressing various student psychological problems more efficiently and comprehensively. Therefore, this study focused on testing whether significant differences existed between groups receiving reality group counseling and control groups in levels of academic stress, self-esteem, and emotion regulation, as well as identifying which variables showed the greatest change after intervention.

METHODS

This study employed a quantitative approach with a true experimental pretest-posttest control group design (Creswell & Creswell, 2023). This design was used to test the effectiveness of reality group counseling intervention on academic stress, self-esteem, and emotion regulation. The experimental group received treatment, while the control group received no intervention during the research period.

The population comprised all eleventh-grade students of SMAN 3 Klaten totaling 315 students. Sampling used purposive sampling based on initial screening results with criteria: high academic stress (≥ 75th percentile), low self-esteem (≤ 25th percentile), and low emotion regulation (≤ 25th percentile), as well as willingness to participate in the program. From 78 students meeting the criteria, 64 were randomly selected and divided into experimental (n = 32) and control (n = 32) groups through random assignment. Initial testing results showed both groups were statistically equivalent ($p > 0.05$).

The intervention was reality group counseling based on the WDEP system (Wubbolding, 2017), conducted over 8 sessions (4 weeks), each 90 minutes with a frequency of 2 times per week. Each session included needs discussion, behavior evaluation, action planning, skills practice, homework, and reflection. Counselors were Master's in Psychology students who had received training and supervision. Instruments included the Academic Stress Scale

(ESSA, α = 0.89), Rosenberg Self-Esteem Scale (α = 0.87), and Emotion Regulation Scale ERQ (Gross & John, 2003; α = 0.91), all using 5-point Likert scales and having undergone validity and reliability testing.

Data analysis used MANOVA to test differential effects of intervention on three dependent variables simultaneously. Assumption tests included multivariate normality (Mardia), covariance homogeneity (Box's M), and correlations among dependent variables, all showing results satisfying analysis requirements. Analysis continued with univariate ANOVA if significant effects were found, along with effect size calculation using eta squared (η^2) at a significance level of 0.05.

RESULTS AND DISCUSSION

Results

MANOVA assumption tests: Box's M test produced M = 12.45 (F = 1.22; p = 0.063), indicating homogeneous variance-covariance matrices. Mardia's multivariate normality test showed skewness = 1.23 (p = 0.12) and kurtosis = 2.45 (p = 0.08), normal. Correlations among dependent variables: stress with self-esteem r = -0.58; stress with emotion regulation r = -0.62; self-esteem with emotion regulation r = 0.54 (all $p < 0.01$), thus MANOVA use was appropriate.

MANOVA Results: There was a significant multivariate difference between experimental and control groups on the linear combination of the three dependent variables (academic stress, self-esteem, emotion regulation). Wilks' Lambda = 0.32; $F(3,60) = 42.56$; $p < 0.001$; $\eta^2 = 0.68$. This meant 68% of variance in the combined scores of the three variables could be explained by group differences (intervention vs control). Observed power > 0.99.

Table 1. Univariate ANOVA Results

Variables	SS	df	MS	F	p	η^2
Academic stress	18.42	1	18.42	38.45	<0.001	0.39
Self-esteem	21.56	1	21.56	45.21	<0.001	0.43
Emotion regulation	24.78	1	24.78	52.34	<0.001	0.47

All univariate tests were significant with medium to large effect sizes. The largest effect was on emotion regulation ($\eta^2 = 0.47$), followed by self-esteem (0.43) and academic stress (0.39). Mean gain scores: the experimental group showed a stress reduction of -0.89 points (4.12 to 3.23), self-esteem increase of +0.96 (2.28 to 3.24), emotion regulation increase of +1.05 (2.56 to 3.61). The control group showed no significant changes.

Table 2. Pretest, Posttest, and Gain Score Means

Variables	Group	Pretest	Posttest	Gain	Paired t	p
Academic stress	Experimental	4.12	3.23	-0.89	7.82	<0.001
	Control	4.08	4.01	-0.07	0.58	0.565
Self-esteem	Experimental	2.28	3.24	+0.96	-8.45	<0.001
	Control	2.31	2.35	+0.04	-0.42	0.678
Emotion regulation	Experimental	2.56	3.61	+1.05	-9.21	<0.001
	Control	2.61	2.63	+0.02	-0.21	0.832

Table 3. MANOVA Summary with Pretest as Covariate (MANCOVA) -- Robustness Check

Effect	Wilks' Λ	F	df	p	η^2
Group (exp vs control)	0.35	40.12	3.58	<0.001	0.67
Pretest (covariate)	0.72	12.34	3.58	<0.001	0.28

MANCOVA results remained significant after controlling for pretest, confirming that changes were not due to initial differences. Overall, research hypotheses were accepted: reality group counseling was effective in reducing academic stress, increasing self-esteem, and improving emotion regulation in high school students. The largest effect was on emotion regulation, followed by self-esteem, then academic stress.

Discussion

This study provided empirical evidence that reality group counseling was simultaneously effective in addressing three psychological problems that often co-occurred in adolescents. The finding of Wilks' Lambda = 0.32 ($p < 0.001$) with effect size of 0.68 indicated that this group intervention was highly effective (large category, Cohen, 1988). The advantage of MANOVA in this study was its ability to test effects on three correlated variables simultaneously, thus avoiding Type I error inflation if using three separate t-tests (Field, 2023).

The effect on academic stress ($\eta^2 = 0.39$) showed significant reduction in the experimental group (gain -0.89) while the control group remained stable. This aligned with the meta-analysis by Kim & Hwang (2023), reporting an effect size of 0.67 for reality interventions on stress. The mechanism behind stress reduction was the change in students' perception of academic demands through WDEP techniques. In counseling sessions, students were invited to identify realistic wants, evaluate current learning behaviors, assess effectiveness, and plan new actions. When students realized they could control choices and actions, perception of threat (stressor) decreased (Wubbolding, 2017). Previous research by Sari et al. (2024) found that the highest academic stress occurred in students with external locus of control. Reality counseling explicitly changed locus of control to internal, making students feel more empowered in facing demands.

The effect on self-esteem (η^2 = 0.43) was quite large. The experimental group increased from 2.28 (low category) to 3.24 (moderate category), while controls stagnated. Glasser (1998) stated that low self-esteem stemmed from failure to meet basic needs for love and self-worth. In group counseling, students received positive acceptance from group members, constructive feedback, and recognition of their efforts. Orth & Robins' (2022) research showed that group interventions emphasizing positive identity reinforcement and social skills effectively increased adolescent self-esteem. Furthermore, reality counseling helped students stop "I am worthless" thinking patterns and replace them with "I am responsible for my choices." This finding was consistent with Mulia et al. (2025), who reported self-esteem improvement in boarding school students after value-based group programs.

The largest effect was found on emotion regulation (η^2 = 0.47), with a mean increase (gain score) of +1.05. This result indicated that reality group counseling had a relatively stronger influence on improving students' ability to manage emotional responses compared to the other two variables. Theoretically, reality counseling did not directly emphasize emotion regulation techniques such as reappraisal or mindfulness, but focused on increasing individuals' awareness of the relationships among needs, behavior, and consequences. Within the Choice Theory framework, individuals were viewed as having control over cognitive and behavioral aspects that ultimately affected emotional conditions. Through WDEP stages (Wants, Doing, Evaluation, Planning), students were facilitated to evaluate gaps between actual conditions and psychological needs, then formulate more adaptive alternative actions. This evaluative and planning process indirectly reconstructed students' thinking patterns regarding situations faced, thereby impacting more stable and adaptive emotional responses. This approach had conceptual alignment with the cognitive reappraisal process in James J. Gross's Process Model of Emotion Regulation. This result was also consistent with Zhou et el. (2024) findings that group-based cognitive-behavioral interventions effectively improved emotion regulation in adolescents with medium to large effect sizes (d = 0.52).

Comparison with other interventions: Some previous studies used cognitive-behavioral group counseling (CBT) for stress or emotion regulation. However, reality counseling had advantages in simplicity and focus on personal responsibility that resonated with Indonesia's collectivistic yet autonomy-valuing adolescent culture (Fatimah & Nugroho, 2025). A meta-analysis by Zhao et al. (2025) reported that interventions based on self-determination theory (SDT) had effect sizes of 0.54 for well-being, similar to reality therapy which was also based on choice and autonomy.

The simultaneous improvement of all three variables—academic stress, self-esteem, and emotion regulation—could be explained through the reciprocal interconnections among these constructs. In Transactional Stress Theory, stress was viewed as the result of individuals' cognitive appraisal of environmental demands and their perceived ability to cope. In this context, low self-esteem tended to produce less positive self-evaluations, thereby

increasing threat perception and reinforcing academic stress levels. High stress conditions could subsequently weaken emotion regulation abilities because individuals were in less stable psychological states. Conversely, reality counseling interventions emphasizing acknowledgment of choice, responsibility, and internal control contributed to improving students' self-esteem, thereby encouraging more adaptive self-appraisals of academic demands. This change impacted stress reduction and emotion regulation improvement because students were no longer trapped in recurring negative self-evaluation patterns. Thus, reality counseling worked systemically through improved self-evaluation that subsequently affected all three variables simultaneously.

The findings indicated that reality group counseling was effective in reducing academic stress while simultaneously increasing self-esteem and emotion regulation. These results indicated that the reality approach not only helped students address specific problems partially but could also impact various interrelated psychological aspects. The effectiveness of this intervention supported Glasser's concept of total behavior, namely that changes in thinking patterns and decision-making would affect feelings, behavior, and other psychological responses. Thus, the application of WDEP strategies in group settings proved relevant for helping students develop academic demand management abilities while strengthening their psychological resources.

From a practical perspective, these findings provided an empirical basis for guidance and counseling teachers to utilize reality group counseling as a flagship service in addressing various student psychological problems more efficiently. Implementation of the intervention in eight sessions over four weeks showed that group services could be an effective alternative to individual counseling, especially when the number of students needing help was relatively large. Additionally, the use of standardized modules provided opportunities for replication and adaptation in other school contexts. Therefore, improving school counselors' competence in applying the reality approach was important so that services could be delivered consistently and with quality. These findings also highlighted the importance of initial screening processes to identify students experiencing high academic stress, low self-esteem, or emotion regulation difficulties so that interventions could be more targeted.

Theoretically, this study reinforced the relevance of reality theory in the context of education and school counseling services. The results showed that changes facilitated through self-evaluation processes, decision-making, and commitment to more adaptive behaviors could produce improvements across multiple psychological dimensions simultaneously. These findings also expanded empirical evidence on the effectiveness of group interventions in addressing multidimensional problems experienced by adolescents, particularly in the Southeast Asian educational context, which remained relatively limited in international literature. Nevertheless, interpretation of results should consider several limitations. This study did not conduct follow-up measurements, so the sustainability of intervention effects in the long term

could not be ascertained. Additionally, the sample from a single school limited generalizability to other school contexts with different characteristics. The use of self-report instruments also potentially introduced social desirability bias, while the control group receiving no alternative activity may have been subject to attention effects (Hawthorne effect) that had not been fully eliminated. Furthermore, this study had not examined mediating variables that might explain change mechanisms, such as internal locus of control, self-efficacy, or problem-solving ability.

These limitations opened opportunities for future research to develop more comprehensive designs. Longitudinal studies with follow-up measurements after three or six months were needed to determine the stability of changes produced by reality group counseling. Additionally, comparative studies comparing the effectiveness of reality approaches with cognitive behavioral therapy (CBT) or mindfulness-based group counseling could provide deeper information regarding the relative advantages of each intervention. Use of more objective indicators, such as physiological stress measurements, could also strengthen the validity of findings. Future research could also be conducted in schools with higher academic pressure levels and consider moderator factors such as gender, socioeconomic conditions, and parental support to gain a more comprehensive understanding of conditions affecting intervention success. Thus, evidence-based counseling service development could proceed more precisely and sustainably.

CONCLUSIONS

This study showed that reality group counseling was effective in reducing academic stress and increasing self-esteem and emotion regulation in high school students, with the strongest impact observed in emotion regulation ability. The intervention, conducted over several sessions in a relatively short period, proved capable of producing meaningful changes in students' psychological conditions. Therefore, guidance and counseling teachers were advised to adopt reality group counseling as a routine program in addressing student problems, with support for adequate time and space allocation in schools. Additionally, further research was needed to examine the sustainability of this intervention's effectiveness in the long term and to compare it with other counseling approach models.

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