

# Assessing the Effectiveness of Counseling Programs in Improving Adolescent Mental Health Outcomes

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## Abstract

**Background:** Recent studies have shown an alarming rise in mental health issues among adolescents, particularly Depression and Anxiety Disorder, and the need for effective intervention approaches such as counselling programs. **Objective:** The purpose of this study is to explore the impact of the counseling program on adolescents' psychological well-being, and to measure mental health outcomes before and after the program. **Methodology:** A quantitative pre-test and post-test research design was used with 300 adolescents, aged 13 to 18 years old. Psychometric measures were administered to assess anxiety, depression and self-esteem both before and after the intervention. The data were processed and statistically analyzed with SPSS software using paired t-tests and regression. **Findings:** The study found that after counseling, adolescents had significantly lower levels of anxiety and depression and higher self-esteem. Longer and more frequent counselling sessions were linked to improved performance. **Conclusion:** Counseling interventions improve adolescents' mental health. Improved access to formal counselling can help tackle adolescents' mental health issues..

**Keywords:** Counseling, Adolescents, Mental Health, Depression, Anxiety, Intervention, Psychological Well-being

## 1. Introduction

Puberty is a critical period of growth marked by intense physical, emotional and social changes, which often includes the exploration of identity and is associated with heightened susceptibility to mental disorders. Adolescent mental health issues have been increasing in recent years, including rates of Depression and Anxiety Disorder [1] [2]. These issues are affected by educational, peer, family and socioeconomic elements, underscoring the need for early intervention for positive development [3]. Counseling programs have become established and systematic interventions to combat these mental health issues. These programs enhance coping mechanisms, emotional regulation and resilience in teenagers. Nondirective and supportive channels for adolescents to voice their concerns and seek professional advice are provided by school-based counseling programs [4]. Counseling programs, such as cognitive-behavioral and person-centered approaches, have been found to reduce anxiety, depression and behavioural issues [5][6]. Additionally, counseling enhances self-esteem, social skills, and academic achievement, enhancing well-being in the process. Research shows teens who engage in school-based counseling programs have improved emotional well-being and are less likely to develop psychological problems later in life [7]. Peer support and grouped-based counseling interventions also demonstrate improved communication and decreased feelings of loneliness [8]. But the impact of counseling programs can depend on various factors including duration, frequency, qualifications of the counselor and program design [9]. While counseling programs have been shown to be effective, there is a need for rigorous assessment of these interventions. Research often examines short-term impacts while overlooking long-term impacts and pre- and post-intervention comparisons [10]. There is also scant research-reported in various socio-cultural settings, especially in school settings where adolescents spend a substantial amount of time [11]. Ineffective assessment measurement tools also pose a significant challenge [12].

### 1.1 Objectives

- a. To evaluate the impact of countering programs on teens' well-being
- b. To study the impact of counseling on mental health
- c. To determine the association between attendance and well-being

### 1.2 Research Gap

While counseling programs are commonly implemented, there is little empirical evidence that explores the pre- to post-counseling differences in adolescents in controlled school settings. This is coupled with the lack of congruency in program impact due to variation in program delivery. This research fills the gaps by offering a holistic and quantitative assessment of the effect of counseling interventions on adolescent mental health outcomes.

## 2 Literature review

The last 5 years of research offers compelling evidence for the positive impact of counseling on young people's mental health. Cognitive-behavioral approaches to counseling have been found to improve adolescents' emotional regulation and coping strategies. Adolescents who engage in systematic counseling experiences decreased stress and enhanced coping skills, resulting in improved psychological adjustment [13][14]. These programs are particularly useful in overcoming symptoms of Depression and Anxiety Disorder, common in adolescents [15]. What's more, there has been increasing interest in the benefits of peer-led and group-based interventions in promoting social support and decreasing loneliness. Research has shown that teens participating in peer counseling show gain in self-esteem and communication skills, positively impacting behavior [16]. School-based interventions have also shown benefits for improving academic achievement and well-being by offering mental health services within school systems [17]. But while these findings are positive, the impact of counseling programs can be highly variable, with factors like program length, frequency of sessions and counselor qualifications playing a key role. And more recent studies show that more structured and longer programs have longer lasting effects on mental health [18]. In addition, variations in program structure and evaluation approaches limit the ability to make comparisons across different studies [19]. The benefits of culturally responsive approaches in counselling are also increasingly recognised, especially in the context of schools. Growing research indicates that culturally responsive approaches and interventions are more effective when working with young people's mental health [20]. This highlights the need for robust guidelines to assess and enhance the effectiveness of counseling programs.

## 3 Methodology

### 3.1 Research Design

We used a quantitative pre-test and post-test design to assess the impact of counseling interventions on young people's mental health. This allowed us to compare psychological status between before and after participation in the study, and to quantify changes. Such designs are common in intervention studies to determine whether interventions cause change and achieve program outcomes.

### 3.2 Participants

We recruited 300 adolescents (13-18 years of age) using a stratified random sampling method, to enable representation of gender and age cohorts as shown in table 2. The students were drawn from high schools and informed consent was sought from students and their parents (guardians), as per the information provided in table 1.

Table.1. Demographic Characteristics

Variable	Category	Frequency (n)	Percentage (%)
Age Group	13–15 years	145	48.3%

	16–18 years	155	51.7%
Gender	Male	152	50.7%
	Female	148	49.3%
School Type	Public	170	56.7%
	Private	130	43.3%

### 3.3 Data Collection Tools

Psychometric tests were used to measure the mental health effects and impact of the counselling. These provided reliable and valid assessment of psychological measures mentioned in table 2.

Table.2. Measurement Instruments

Variable	Instrument Used	Purpose
Anxiety & Depression	DASS-21 Scale	Measures emotional distress
Self-esteem	Rosenberg Self-Esteem Scale	Assesses self-worth
Counseling Effectiveness	Program Evaluation Questionnaire	Evaluates intervention outcomes

### 3.4 Conceptual Framework Diagram

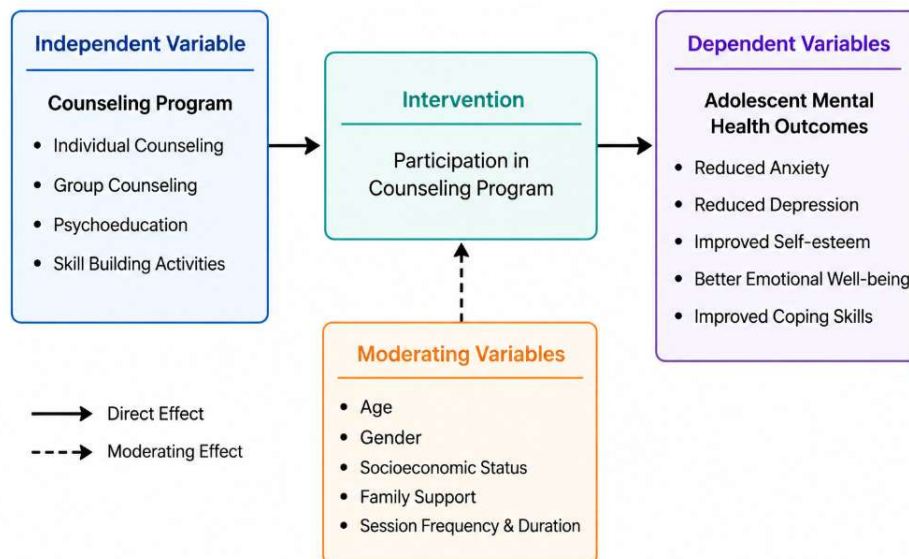


Figure 1: Conceptual Framework Diagram of the Impact of Counseling Program on Adolescent Mental Health Figure 1 is the conceptual framework of the effect of counseling programs on adolescent mental health. The independent variable is a counseling program that can contain the components of individual or group counseling, psychoeducation and skill-building exercises. These programs result in participation in counseling programs, which is the key mediator. Dependent variables include the positive impact of counseling on the mental health of adolescents, such as lowering Depression or Anxiety Disorder, increasing self-esteem, emotional well-being, and coping skills of adolescents. Moderating factors including age, gender, socioeconomic status, family support and frequency of sessions moderate these effects. This framework emphasises direct and indirect influences of counselling, and illustrates the complex ways in which structured interventions can lead to better mental health for adolescents. The framework shows counseling intervention as the variable which affects psychological outcomes (anxiety, depression, self-esteem) and pre-test and post-test data show the intervention works.

### 3.5 Data Analysis

SPSS was used to analyze the data. We used descriptive statistics to describe participants' characteristics and paired t-tests to compare pre- and post-test scores. Regression analyses were also performed to assess the effects of the length,

and the frequency of counseling sessions, on psychological outcomes. A significance level of  $p < 0.05$  was considered significant.

## 4 Results & Discussion

This chapter presents the results from the analysis of pre-test and post-test data of 300 teens participating in the counseling programs. The findings highlight the improvements in psychological well-being, such as Depression, Anxiety Disorder and self-esteem. Applying statistical analysis methods such as paired t-tests and regression, the study evaluated the impact of cognitive behavior interventions. The results are presented in tables and figures for easy comprehension.

Table.3. Pre-Test and Post-Test Comparison

Variable	Pre-Test Mean	Post-Test Mean	Mean Difference	t-value	Significance (p)
Anxiety	4.0	2.8	-1.2	8.45	<0.001
Depression	4.3	2.9	-1.4	9.12	<0.001
Self-esteem	2.4	3.6	+1.2	7.88	<0.001

The table 3 demonstrates considerable improvement in all of the psychological scores after counselling. There was reduction in the scores of anxiety and depression, with improvement in self-esteem. The large t-values and very small p-values (<0.001) demonstrate the positive effects of counseling on the mental wellness of the adolescents.

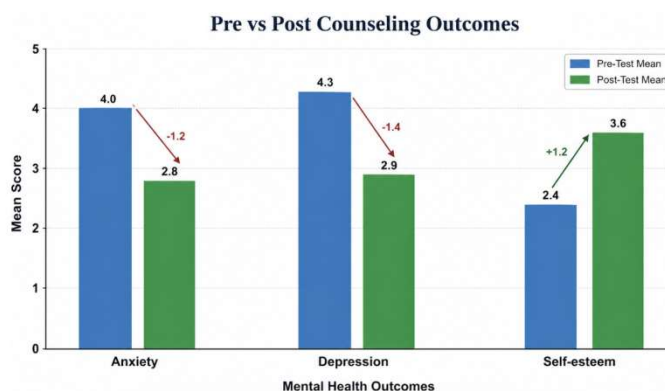


Figure.2. Pre vs Post Counseling Outcomes

Figure 2 depicts pre vs post changes in psychological measures. The plot illustrates the reduction in levels of anxiety and depression, and the improvement in self-esteem scores, supporting the results that show counselling programs are effective in enhancing the psychological well-being of young people.

Table.4. Regression Analysis (Predicting Mental Health Improvement)

Predictor Variable	Beta ( $\beta$ )	t-value	Significance (p)
Counseling Duration	0.48	6.75	<0.001
Session Frequency	0.42	6.10	<0.001

The regression analysis shows that both the duration and frequency of counseling sessions are significant predictors of their mental health benefits. As demonstrated in table 4, counseling duration has a stronger impact on mental health, indicating that the benefits of participating in counselling programs increase with duration of these programs.

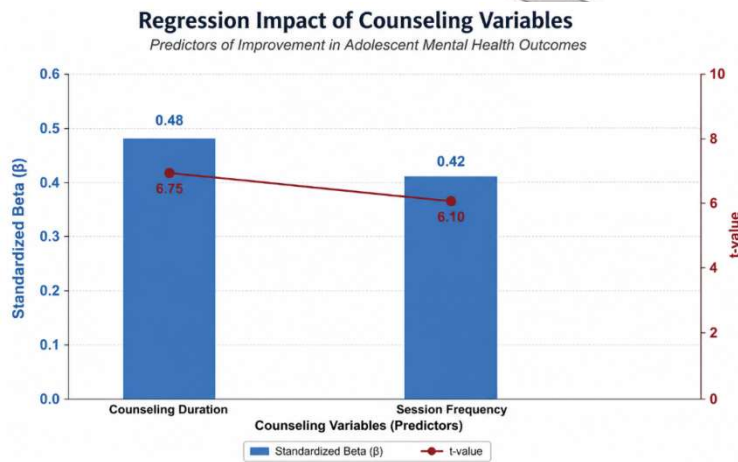


Fig.3. Regression Impact of Counseling Variables

Fig. 3 shows the regression impact of the variables related to psychological well-being. The impact of duration and frequency are both positive and strong, with the impact of duration being higher (beta coefficient), revealing its greater effect on improving psychological well-being.

## 5 Discussion

This study shows that counselling interventions are highly effective in improving youth wellbeing. The decrease in Depression and Anxiety Disorder symptoms and improvement in self-esteem demonstrate the impact of interventions. This study also suggests that the length and frequency of counseling sessions are important factors in achieving improvements. This finding is in line with earlier studies highlighting the role of counseling in improving emotional resilience and coping skills. Taken together, the findings re-affirm the need for providing counseling programs in school settings to improve the mental health of adolescents.

## 6 Conclusion and future scope

This research shows that psychological programs are very effective in promoting mental health among adolescents. This research shows considerable improvement in mental distress, particularly symptoms of Depression and Anxiety Disorder, as well as improvements of self-esteem and well-being. The findings also suggest that elements such as length of time in counselling and frequency of sessions have a significant impact on the benefits of the programs. These findings emphasise the need for systematic, regular and accessible counselling programs in educational institutions. From an applied point of view, the inclusion of school-based counselling programs can offer early intervention for adolescents and teach them valuable coping and resilience skills. And future research needs to include longitudinal research to determine the long term effects of counselling interventions. Studies comparing various therapeutic modalities, such as cognitive-behavioural and peer counselling, can inform research. Also, using qualitative analysis and examining culturally tailored interventions will improve responses of counselling initiatives.

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