



Effectiveness of strength-based approach on anxiety and depression of adolescents with anxiety disorders

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Original Article

Abstract

BACKGROUND: Therapists use the client's strengths to expand their perspective and create hope and motivation, create positive meanings through reframing and metaphor, and identify strengths through the interpersonal therapeutic processes. This study aimed to examine the strength-based approach to anxiety and depression among adolescents with anxiety disorders.

METHODS: In this research, a quasi-experimental design included a control group, a pre-test, and a post-test of 36 adolescent girls with anxiety disorders selected through a purposive sampling method from psychological centers in Tehran City, Iran, from October to December 2020. There were 18 participants in each of the experimental and control groups. Afterward, they were randomly assigned to experimental and control groups. The Hamilton Anxiety Rating Scale (HARS) and Beck Depression Inventory-Second Edition (BDI-II) were applied. The experimental group ($n = 18$) was treated with strengths-based training, for 8 weekly 90-minute sessions, while the control group ($n = 18$) did not receive any treatment. The test for inferential statistics was multivariate analysis of covariance (MANCOVA). These analyses were conducted via SPSS software. The significance level of the analysis was 0.05.

RESULTS: There was a significant difference between the pretest and post-test results for anxiety ($P < 0.001$, $F = 15.28$) and depression ($P < 0.001$, $F = 14.78$). Moreover, the largest effect size was determined by the anxiety (0.597) variable, which indicates that 59% of the variance between the experimental and control groups was the result of a strength-based approach.

CONCLUSION: The strength-based intervention can be an effective approach to improving the mental health of adolescents with anxiety disorders.

KEYWORD: Strength-Based Approach; Anxiety; Depression; Adolescents

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Introduction

Adolescence is a critical period in a person's life in which poor mental health can jeopardize

the development and potential future of adolescents.¹ Increased psychological symptoms of anxiety and depression have been reported worldwide, and hence, adolescent mental health concerns have increased.² According to a research review by Chi et al., anxiety is the most common mental health problem among adolescents, affecting

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approximately 117 million youth from 5 to 19 years around the world.³ Epidemiological research indicates that approximately half of all mental health problems develop before the age of 14, with anxiety disorders having the earliest age of onset across several countries and diverse cultures.^{2,4} Early onset anxiety is often a precursor to co-morbid anxiety disorders, mood, or substance disorders, highlighting the need for better detection and early intervention.⁴ Additionally, prevalence data show that young girls and young cohorts are most susceptible to social anxiety.⁵ Studies have shown that these children often have poorer emotional well-being and social outcomes compared to their peers.⁶

The authors concluded that improving the mental health and well-being of adolescents with anxiety disorders at the population level was likely to be one of the most important prerequisites to improving the performance of these adolescents.⁷ Despite this directive, the challenge of identifying mechanisms that might buffer mental health problems and promote well-being in adolescents with anxiety disorders remains a substantial one for clinicians, researchers, educators, and policymakers.⁸ One set of psychological resources that *has* demonstrated strong evidence in influencing mental health, vocational performance, and well-being outcomes for adolescents is strengths-based intervention.^{6,8} It is, therefore, crucial that the care these children receive is informed by the child's own needs. Strengths-based measures seek to use a collaborative approach to assess a young person's areas of strength and to use these to help the young person during times of adversity.⁶ The strengths-based intervention focuses on the patient's attributes that promote wellness and can work synergistically with the conventional medical model of treating disease. The strengths-based approach is predicated on the assumption that each individual has a unique set of goals and possesses internal

strengths and external resources that can help them achieve these goals.⁹

Strength-based therapy is a type of positive psychotherapy and counseling that focuses more on your internal strengths and resourcefulness, and less on weaknesses, failures, and shortcomings. This focus sets up a positive mindset that helps you build on your best qualities, find your strengths, improve resilience, and change your worldview to one that is more positive. A positive attitude, in turn, can help your expectations of yourself and others become more reasonable.¹⁰ Moreover, when strengths and risks are assessed at the same time, patients experience the assessment as more supportive, motivating, and conducive to a sense of empowerment. Consequently, it seems essential to support this dual approach in all care processes and to apply it from the outset when taking the patient's medical history. This approach also allows viewing patients more holistically.¹¹ The study by Zhao *et al.* indicated that strengths-based group intervention had a significant effect on anxiety reduction and self-efficacy improvement over time. The study also found that self-efficacy mediated the relationship between strengths-based group intervention and anxiety.¹² A strength-based approach to behavioral difficulties in Prader-Willi syndrome (PWS) provides a more balanced view of the children and a more holistic foundation for interventions.¹³

This figure highlights the necessity and urgency of research on mental health and its associated risk and protection mechanisms in adolescents with anxiety disorders. Numerous studies have shown an alarming prevalence of anxiety disorders among youth. Prevention of anxiety disorder in this population has become crucial.¹² However, to date, there has been minimal attention paid to the potential for strengths-based approaches for adolescents with anxiety disorders, that is, interventions that explicitly and primarily focus on the identification and use of cognitive strengths in

a manner to support functional recovery. The purpose of this review is to provide an argument for complementing current approaches to remediating cognitive impairments by extending strengths-based or positive psychology approaches to the domain of cognition as a promising avenue for further enhancing recovery from anxiety disorders. Basic research should, therefore, aim for a more detailed understanding of well-being and character strengths in this context. Against this background, this study aimed to examine the strengths-based approach to decreasing anxiety and depression among adolescents with anxiety disorders.

Methods

In this research, a quasi-experimental design included a control group, a pre-test, and a post-test of 36 adolescent girls with anxiety disorders referred to specialized centers to treat anxiety (Entekhabeno Counseling Center and the specialized center of treatment for anxiety and depression) in Tehran City, Iran, from October to December 2020, who were selected through a purposive sampling method. To administer this study, with the assistance of the Entekhabeno Counseling Center and specialized center of treatment for anxiety and depression authorities, approvals were obtained from the selected centers [two private centers located in different regions (6 and 9) of Tehran City]. Participants were included if they met the following inclusion criteria: self-reported scores ≥ 28 on the Hamilton Anxiety Rating Scale (HARS), and no involvement in any regular anxiety disorder therapy. This study chose junior middle school students (age 13 to 16) as participants. Meanwhile, the exclusion criteria were specified as: impaired cognitive function, difficulty following group rules, inappropriate behavior, and missing two training sessions. Due to the exclusion of several people in the study, a total of 40 people

were determined to be the sample size through $\alpha = 0.05$ and power of 80%.

Considering safety during the pandemic, questionnaires were distributed to students by school teachers through an online survey platform, in which instructions were provided. The questionnaire contained scales of the HARS, Beck Depression Inventory-Second Edition (BDI-II), and some sociodemographic information.¹⁴ According to the criteria for entering the study and information in the medical records, the subjects were selected for this study after visiting specialized depression and anxiety treatment centers, getting permission, and explaining their educational goals. A total of 81 adolescents were selected for this study. As a result of the exclusion and non-participation of several clients, only 40 people were included in the study. After the groups were divided into two groups, the experimental group and the control group (by odd and even number method), two people from each group were excluded from the study due to the exclusion conditions. Therefore, the total population in this study was 36 adolescents with binge-eating disorders (BED). Moreover, the assignment of individuals to experimental and control groups was done randomly. Each participant received an envelope containing a number and a randomly selected identifier to determine whether they were in the experimental or control group. Figure 1 displays all processes. Strengths-based training was devised by Saleebey (Table 1).¹⁵ Throughout eight sessions, this technique was presented (every session: 90 minutes). After these sessions, both groups were given post-test evaluations. The experimental group was taught methods and techniques of strengths-based strategies for 8 sessions (90 minutes a week) after the above-mentioned meetings (training sessions of strengths-based skills were held once a week for 2 months), whereas the control group received no psychological training during this time.

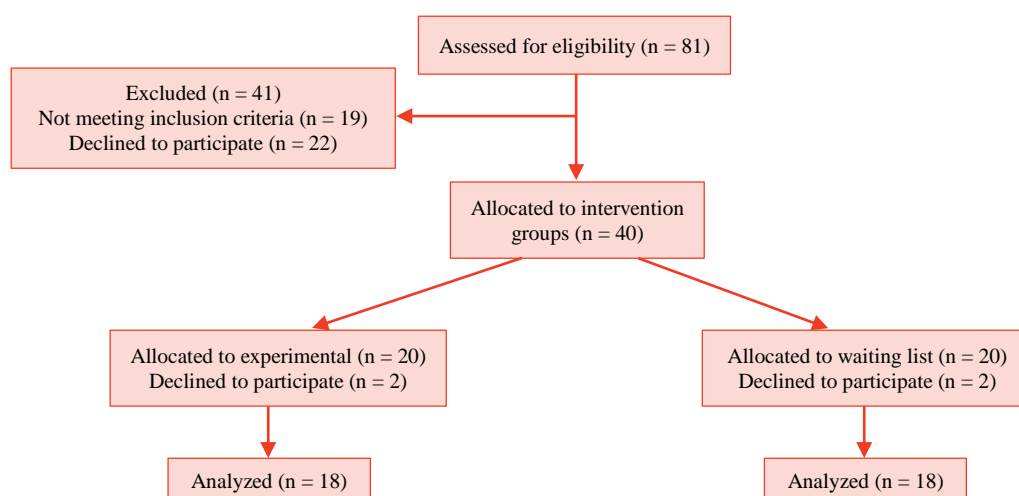


Figure 1. Flow diagram

The treatment sessions were held by a clinical psychologist at the specialized treatment center. After these sessions, both groups were given post-test evaluations. It is worth noting that the guardians of participants had been informed of the investigation by the head of teachers before data collection. The purpose of this study was explained to all participants, and it was highlighted that all the collected data would be analyzed in an aggregated manner, with personal information being kept in strict confidentiality. All participants were volunteers, and all participants and guardians had signed an online consent form before filling out the questionnaires. Recruitment and data

collection procedures were approved by the Human Research Ethics Committee of Islamic Azad University, Science and Research Branch, Tehran (IR.IAU.SRB.REC.1400.115).

As part of descriptive statistics, we used indices such as means and standard deviations (SDs) that assessed central tendency and dispersion. The test for inferential statistics was multivariate analysis of covariance (MANCOVA). An inferential test was carried out using Levene's test (to examine variance homogeneity) and the Kolmogorov-Smirnov test (to assess the normal distribution of the data). Levene's test was insignificant ($F_{1,34} = 0.39$, $P = 0.46$) and ($F_{1,34} = 0.75$, $P = 0.27$) for anxiety and depression, respectively.

Table 1. Contents of strengths-based protocol sessions¹⁵

| Sessions | |
|----------|--|
| 1 | Strengths-based practice is goal-oriented, and MI is focused on goals and values exploration. |
| 2 | Strengths-based practice contains a systematic means of assessing strengths. |
| 3 | The strengths-based practice sees the environment as rich in resources. |
| 4 | In strengths-based practice, explicit methods are used to use client and environmental strengths for goal attainment. Although explicit methods are not always used, MI assumes that every individual group or family has strengths. |
| 5 | The strengths-based relationship is hope-inducing. |
| 6 | In strengths-based practice, the provision of meaningful choices is central, and individuals have the authority to choose. |
| 7 | Strengths-based practice presents the best service to clients by collaborating with them. |
| 8 | The strengths-based practice assumes trauma and abuse, illness, and struggle may be injurious, but they may also be sources of challenge and opportunity. |

Therefore, the assumption of homogeneity of variances was confirmed ($P < 0.05$). Moreover, the significance level for Kolmogorov-Smirnov test was greater than 0.05, supporting the assumption that the distribution of variables was normal. These analyses were conducted via SPSS software (version 21, IBM Corporation, Armonk, NY, USA). The significance level of the analysis was 0.05.

HARS: HARS is a 14-item scale that covers 13 symptoms of anxiety developed by Hamilton.¹⁶ Each item was rated on a 4-point scale (0 = not present to 4 = severe). The score range was 0 to 56. Those who scored 5 or less were considered to have no anxiety. Other categories were as follows: 6 to 14 = mild anxiety, 15 to 28 = moderate anxiety, 29 to 42 = severe anxiety, and 43 to 56 = very severe anxiety. In Iran, HARS was validated by Kavyani *et al.*, and was reported to have high reliability and validity.¹⁷ This questionnaire was estimated to have a Cronbach's alpha coefficient of 0.75.

BDI-II: This questionnaire was developed by Beck to measure the severity of depression (1963) and was revised in 1994. This inventory includes 21 items, each scored from 0 to 3. The highest score achievable on this questionnaire is 63. Each item on the questionnaire measures one symptom of depression. Its retest reliability is reported as 0.48 to 0.86, with a mean score of 0.86.¹⁸ Ghassemzadeh *et al.* reported an alpha coefficient of 0.87 and a test-retest coefficient of 0.74 for this tool and found a correlation with the first edition of BDI

of 93.0.¹⁹ It is estimated that this questionnaire has a Cronbach's alpha coefficient of 0.81.

Results

The participants comprised 36 female students, aged between 12 and 17 years old (mean age = 14.24 ± 0.96). The most of were 12-14 years old ($n = 22$, 61.11%), and minority of the participants were 16-17 years old ($n = 12$, 33.33%). Moreover, about 7 (19.44%) were single children. The distribution of scores of variables in the pre-test versus post-test phase, regarding the strength-based approach intervention, is shown in table 2.

As illustrated in table 2, the mean and SD of anxiety score in the experimental and control groups in the pre-test were 37.28 ± 5.26 and 38.51 ± 6.07 , respectively, and in the post-test, 32.41 ± 5.03 and 37.16 ± 5.83 , respectively. Moreover, the mean and SD of depression scores for experimental and control groups in the pre-test were 53.13 ± 6.19 and 54.63 ± 7.19 , and in the post-test, 46.56 ± 5.34 and 52.34 ± 6.48 , respectively.

In table 3, it is shown that the experimental and control groups have significant differences based on the dependent variables at the level of $P = 0.001$. Therefore, it is possible to conclude that at least one of the dependent variables (anxiety and depression) differs significantly between the two groups. According to the calculated effect size, about 65% of the total variance of the experimental and control groups was due to the effect of the independent variable.

Table 2. Descriptive statistics

| Variable | Groups | Statistical index | Mean \pm SD | Kurtosis | Skewness |
|------------|-----------|-------------------------|------------------|----------|----------|
| Anxiety | Pre-test | Control | 38.51 ± 6.07 | 0.181 | -0.786 |
| | | Strength-based approach | 37.28 ± 5.26 | 0.788 | 0.772 |
| | Post-test | Control | 37.16 ± 5.83 | -0.476 | -1.110 |
| | | Strength-based approach | 32.41 ± 5.03 | 0.553 | -0.120 |
| Depression | Pre-test | Control | 53.13 ± 6.19 | -0.717 | 1.127 |
| | | Strength-based approach | 54.63 ± 7.19 | 0.896 | 1.640 |
| | Post-test | Control | 52.34 ± 6.48 | 0.364 | 1.565 |
| | | Strength-based approach | 46.56 ± 5.34 | 0.278 | 0.665 |

SD: Standard deviation

Table 3. Results of multivariate analysis of covariance (MANCOVA) on variables

| Test statistic | Value | F | df | df error | P | Effect size | Eta |
|--------------------|-------|-------|----|----------|-------|-------------|-----|
| Pillai's trace | 0.631 | 51.29 | 2 | 34 | 0.001 | 0.65 | 1 |
| Wilks' lambda | 0.143 | 51.29 | 2 | 34 | 0.001 | 0.65 | 1 |
| Hotelling's trace | 5.190 | 51.29 | 2 | 34 | 0.001 | 0.65 | 1 |
| Roy's largest root | 4.730 | 51.29 | 2 | 34 | 0.001 | 0.65 | 1 |

df: Degree of freedom

To find out the difference, two analyses of covariance (ANCOVA) were performed in the MANCOVA context (Table 4).

Table 4 shows that the scores for anxiety ($P = 0.001$, $F = 15.28$) and depression ($P = 0.001$, $F = 14.78$) were significant among the intervention group. Therefore, a strength-based approach can be seen as an effective way to decrease anxiety and depression among adolescents with anxiety disorders. Moreover, the largest effect size was determined by the anxiety (0.597) variable, which indicates that 59% of the variance between the experimental and control groups was the result of a strengths-based approach.

Discussion

The purpose of the study was to consider the effectiveness of a strength-based approach intervention in decreasing anxiety and depression among adolescents with anxiety disorders. Our results showed that a strength-based approach could be seen as an effective way to decrease anxiety and depression among adolescents with anxiety disorders, which indicated that 59% of the variance between the experimental and control groups was the result of a strength-based approach, thereby providing evidence for the effectiveness of this program.

According to this study, the results were consistent with those of Feng,⁸ Yuen *et al.*,⁹ Zhao

et al.,¹² and Gabana.²⁰ Research surrounding strengths-based therapy has shown that it is an effective treatment for a variety of conditions, including depression²⁰ and trauma.^{21,22}

Yuen *et al.* demonstrated that using a strengths-based approach, functioning patients might have acquired greater resilience than more severely psychosocially challenged patients and families, and thus might respond more effortlessly to a strengths-based approach.⁹ In many cases, the strengths-based intervention can be used in conjunction with the conventional medical approach, rather than as a monotherapy. Moreover, Zhao *et al.* indicated that a strengths-based approach had a significant effect on anxiety reduction and self-efficacy improvement over time.¹² The study also found that self-efficacy mediated the relationship between a strengths-based approach and anxiety. It is also beneficial as an early intervention to promote adolescents' serious mental health issues, such as psychosis.^{23,24} Evidence has shown that strengths-based interventions that promote wellness generate positive outcomes in children with psychiatric disorders and disadvantaged backgrounds.⁹ Furthermore, a strength-based approach has been shown to improve hospitalization rates, self-efficacy, and a sense of hope,¹² as well as a promising avenue for further enhancing personal and functional recovery from first-episode psychosis.²⁴

Table 4. Results of analysis of covariance (ANCOVA) in the multivariate ANCOVA (MANCOVA) context

| Dependent variable | Source | SS | df | MS | F | P | Eta |
|--------------------|--------|---------|----|---------|-------|-------|-------|
| Anxiety | Group | 1691.36 | 1 | 1691.36 | 15.28 | 0.001 | 0.597 |
| Depression | Group | 5471.28 | 1 | 5471.28 | 14.78 | 0.001 | 0.463 |

SS: Sum of squares; df: Degree of freedom; MS: Mean square

It has been suggested that people have strengths within themselves that can contribute to the recovery. Personal factors could aid the recovery process.¹⁴ A study on 55 consumers found that the presence of personality assets significantly predicted a long-term trend of improvement in disability over a follow-up period of 16 years.¹⁵ Additionally, in a large-scale web-based retrospective study where 1008 participants considered themselves to have experienced serious psychological problems or emotional difficulties, the findings revealed that recovery from psychological disorders was associated with greater character strengths.¹⁶ The focus on identifying and building upon individual strengths is captured within major conceptual frameworks of personal recovery in mental illness, particularly through empowerment and supporting hope and optimism for change.⁸⁻¹⁰ This model is representative of core processes in personal recovery among people with lived experience.²⁵ Relatedly, positive psychology approaches are increasingly being recognized and adapted for utility within mental health populations, with positive preliminary findings.^{10,11,24}

This study faced some limitations, for example, in the self-report questionnaires, the responses of participants to anxiety and depression did not reflect their actual behavior. Based on the sample size, the statistical analyses reported were suitable to identify significant effects. Moreover, a purposive sample makes these findings hard to generalize. It may be appropriate to use a diverse sample of gender and socioeconomic groups in future research. It is recommended that the same approach be applied to a sample of boys in future studies, and the results should be compared with these findings. Future studies should include more than 40 participants, since the number of participants in this study was limited. In place of self-reporting tools that cause participants to

be subjectively biased, interviews should be conducted.

Conclusion

According to the findings, the strength-based approach has been useful in reducing anxiety and depression in adolescents with anxiety disorders. Although people of all ages can benefit from this approach, teenagers in particular find strengths-based therapy effective.

Conflict of Interests

Authors have no conflict of interests.

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