

## Original Article

# The effectiveness of transactional analysis psychotherapy on negative automatic thoughts and optimism of female adolescents with social anxiety disorder

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### Abstract

In this study, transactional analysis psychotherapy was used to evaluate the effect of negative automatic thoughts and optimism on female adolescents with social anxiety disorder. It included female adolescents in district 6 of Isfahan in 2019-2020 who were referred to psychological clinics to treat social anxiety disorder and were chosen by purposive sampling. It was a quasi-experimental study with pre-post tests and a control group, where 24 female adolescents with social anxiety disorder were randomly assigned to experimental and control groups (12 in each group). Data collection instruments included Life Orientation Scale (LOT-R) and Negative Automatic Thoughts Questionnaire (NATQ). The experimental group received an educational program during eight 90-minute weekly sessions; the control group did not receive any interventions. In both groups, questionnaires were administered before and after the intervention sessions. In addition, the data were analyzed using SPSS software, Version 19, using covariance analysis. The results showed that the experimental and control groups differed significantly regarding optimism during pretest control ( $F=23.573$ ;  $p < .0001$ ). Transactional analysis psychotherapy increased optimism among the experimental group because the mean optimism levels were higher than those of the control group. The results of the study suggest that transactional analysis psychotherapy is an effective method for treating social anxiety.

### Keywords

Transactional analysis psychotherapy, negative thoughts, optimism, female adolescents, social anxiety disorder.

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## Introduction

Transactional analysis (TA) is beneficial in evaluating organizations and their management, evaluating child development, treating psychological disorders at educational programs, and for social workers. In general, it is useful in any field that relies on understanding people, relations, and communications. The methods and techniques of TA are designed in a way that promotes independence and self-direction. The ability to induce intimacy and use the adult resources a student has available to solve problems are the most significant factors in fostering independence and self-direction. Researchers have found that TA is effective in improving relationships between parents and children. Transactional analysis reduces adolescents' emotional orientation and promotes their problem-orientation by improving their methods of confrontation (Forghani & Abadi, 2016). Besides, studying human relationships relating to each

other, relationship analysis emphasizes the importance of people having healthy, positive, and satisfying relationships with one another and replacing destructive, negative, and degrading relationships with them. Having a calming effect on the mind and making life more enjoyable will help to release psychological tension. According to Sakaki and Hassan (2017), transactional analysis is one of the most effective psychological theories when it comes to solving problems in human relationships and making people happier. Educational and social restrictions are examples of obstacles to the satisfaction of impulses. Against impulse and related anxiety, the person may unconsciously use defenses (Frederickson et al., 2018; Grecucci et al., 2020). In psychoanalysis, several defense mechanisms have been described, from denial or suppression of disturbing memories or thoughts to severe distortions of reality (e.g., projections or delusions) (Messina et al., 2021). In ITAP, the therapist aims for impulse emersion. Toward this goal, the therapist observes every anxiety manifestation

as a signal of a covered impulse and confronts the patient with defenses that prevent the anxiety from emerging. The ITAP model describes psychic functioning as a network of impulses, anxiety, and self-defenses that have their origin in past relationships and can be applied in the current relationship (e.g., current relationships or therapeutic relationships). Sambin (2018) and Khanali, Kheirabadi, and Khodadadi (2021) found that TA interventions significantly influenced interpersonal problems and readiness for treatment. In a study conducted by Nowruzpoor, Vakili, and Rezakhani (2010), the group psychotherapy approach with TA significantly affected individuals' sense of self-efficacy and identity styles. They found the TA method has proven beneficial to analyze organizations and to manage them, to evaluate child development, to manage psychological problems in educational settings, and for social workers. Safinia, Ebrahimi Moghadam, and Abolmaali (2021) found that transactional analysis training improved the communication skills and attributions of belief of incompatible women. Sakaki and Hassan (2017) concluded that the therapy based on transactional analysis was effective in helping couples cope with marital burnout and increase their forbearance. Transactional analysis can help in understanding how behaviors, emotions, and thoughts are often interrelated. Moreover, it facilitates people to interact with others in the real world, particularly adaptation in individual, family, and community life is promoted (Bianchini & de Nitto, 2019). The purpose of this study was to determine whether using TA techniques in therapy can reduce negative automatic thoughts and promote optimism in female adolescents with social anxiety. Researchers can use the current study as a springboard for conducting more experimental and correlational studies to show further evidence of the effect of this treatment.

## Method

### *Participants*

The research design was quasi-experimental with pre-test-post-test and a control group. This study included female adolescents in district 6 of Isfahan in 2019-2020 who were referred to psychological clinics to treat social anxiety disorder and were chosen by purposive sampling. It was a quasi-experimental study with pre-post tests and a control group, where 24 female adolescents with social anxiety disorder were randomly assigned to experimental and control groups (12 in each group). In addition, female adolescents with social anxiety disorder who were absent for more than three sessions were excluded from statistical analysis, but were allowed to attend. The start of training sessions was subject to the timely attendance of all female adolescents with social anxiety disorder, and a delay of more than 20 minutes was considered absenteeism. For inclusion, the diagnosis of social anxiety disorder using

the social anxiety questionnaire for adults (SAQ-A30), ages 13 to 18 patients not having any mental disorders, including personality disorders, bipolar disorder, major depression, no or no other anxiety disorders and not taking psychological drugs. Exclusion criteria also included: use of any drugs and alcohol, absence in more than one-third of treatment sessions, any disability or psychiatric illness, and simultaneous participation in any other educational intervention. Eight schema therapy sessions were held for intervention group according to Table 1. The experimental group received an educational program during eight 90-minute weekly sessions. It is worth noting that all patients received some verbal and written information about the research and signed the consent letter; so, they participated in the study informed and ensured confidentiality. The following questionnaires were used to collect the data.

## Instrument

### *Negative Automatic Thoughts Questionnaire:*

Kendall and Holon have developed a questionnaire for assessing the frequency of negative self-statements in depressive patients with 30 questions. Likert scale scoring ensures that the options are never, sometimes, usually often, and all the time scored in the order of 1 to 5. Each person's total score is between 30 and 150. A score of 30-70 indicates low-intensity negative self-reported thoughts, moderate 109-71, and 110-150 indicates severe negative future thoughts. These overt negative comments play an important role in creating, perpetuating, and treating various psychological traumas, including depression, which indicates low self-esteem and helplessness. In the negative spontaneous thoughts questionnaire, questions 7, 10, 14, 20, 26 are related to the subscale of personal incompatibility and tendency to change. Questions 2, 3, 9, 21, 23, 24, 28 measure negative self-concept and negative expectations. Questions 17 and 18 are related to low self-esteem, and questions 29 and 30 measure the helplessness subscale (Hollon & Kendall, 1980). Hollon and Kendall (1980) reported Cronbach's alpha of the questionnaire as 0.89. According to Ghassemzadeh, Mojtabai, Karamghadiri, and Ebrahimkhani (2005), the 0.96 Cronbach's alpha questionnaires were reliable. In the present study, the reliability of the negative spontaneous thoughts questionnaire through Cronbach's alpha coefficient for the components of personal incompatibility and tendency to change 0.81, negative self-concept and negative expectations 0.69, low self-confidence 0.78, and helplessness 0.74 and 0.82 was obtained for the whole questionnaire.

**The R-LOT Life Experiment Scale (1985):**

was designed and revised by Shearer and Carver (1994). (R-LOT) is a six-item self-report test that assesses general expectations about the positive aspects of life versus the negative ones. Shears and Carver reported validity (convergent and differential) and reliability (Cronbach's alpha of 0.78) as favorable for this scale; Is

located (Scheier, Carver, & Bridges, 1994). To determine the convergent validity of the test in Iran, the correlation of the test with five scale factors was used. Significance of the first, fourth, fifth, and ninth factors Beck Frustration The overall score of the Beck frustration scale with the optimism-pessimism scale indicates the acceptable validity of this questionnaire. In Mousavi's study (2005), the reliability of the retest of this questionnaire was 0.70.

**Table 1.** Transactional Analysis Group Therapy Program

Session	Therapy Program
First	Welcoming each other and introducing ourselves, introducing the basic concepts, talking about the mission and goals, discussing the group's principles and rules, motivating them, committing to them, and setting goals. And having specific, measurable, achievable, realistic, and timed goals.
Second	Introduction, acceptance, and incorporation of the collective behavior analysis theory of Bern.
Third	The different "I" modes and how they can be categorized are described, along with examples. The use of collective behavior analysis is incorporated into education and its overview for people to introduce themselves.
Fourth	The principles of behavioral analysis around okay and life modes, including I'm not okay, and you're not okay, I'm okay, and you're okay, I'm okay, and you're okay are taught.
Fifth	Introduction of caress.
Sixth	Adding caress mascots from Steiner's perspective.
Seventh	Presentation of various types of diseases with a view over the collective behavioral study of Bern.
Eighth	Describing the forms of relationships, such as complementary, overlap, and dynamic relationships, in the study of reciprocal behavior.
Ninth	Introduction of barriers and drivers (do not do that, do not act like a child) (try it).
Tenth	working on the definition of change, features of behavior modification, and goals of change for reciprocal behavior analysis involving consciousness, self-motivation, and friendship.

**Results**

Multivariate MANCOVA was employed for data analysis. The collected data were analyzed through SPSS19. Table 2 reports the mean and standard deviation (SD) of scores given to variables in two surveyed groups. As part of the repeated measures analysis of variance, the Kolmogorov-Smirnov test was applied to evaluate the normality of pre-test distributions. Levin statistical test was conducted for homogeneity of variances. Due to the significance of Machley sphericity, the same assumption of covariance was confirmed (P <0.05). According to demographic analyses of research units, the age range of research

samples was 13 to 18 years old. Most of the research's units' fathers and mothers (78.1% and 87.7% separately) had an educational level considered as elementary or middle education. In terms of family size, most of them (62.5%) had three or four children. Of the samples, 75% of the mother's job was housekeeping, 59.9% of the father's job was self-employed, and 49% of the households had an income above the poverty line.

According to Table 2, in the post-test phase, compared to the pre-test phase, transactional analysis psychotherapy negative automatic thoughts decreased and increased optimism.

**Table 2.** Descriptive statistics of the variables by experimental and control groups

Variables	Groups	Experimental	Control
		Mean ±SD	Mean ±SD
Negative Automatic Thoughts	Pre-test	40.23±5.50	42.53±6.09
	Post-test	35.20±4.19	48.90±8.69
Optimism	Pre-test	48.66±9.09	51.33±9.04
	Post-test	51.33±9.04	56.66±9.38

As can be seen in Table 3, the assumption of equal variance of scores in the experimental and control groups was confirmed. Therefore, the assumption of

homogeneity of variances is observed in all major variables of the study, and it is possible to use an analysis of covariance.

**Table 3.** Levene's test results on the assumption of equality of variances of scores research variables

Variables	F	Df1	Df2	P
Negative Automatic Thoughts	1.98	1	38	0.062
Optimism	1.381	1	38	0.542

As shown in Table 4, the assumption of normal distribution of scores in the pretest and in both experimental and control groups was confirmed.

**Table 4.** Results of the Kolmogorov-Smirnov test on the default normality of the distribution of scores research variables

Variables	Groups	Kolmogorov-Smirnov		
		Statistic	DF	P
Negative Automatic Thoughts	experimental	0.753	20	0.623
	control	0.847	20	0.469
Optimism	experimental	0.883	20	0.416
	Control	0.657	20	0.782

As can be seen in Table 5, by pre-test control, the significance levels of all tests indicate that there is a significant difference between the experimental and control groups in terms of at least one of the dependent

variables (automatic thoughts and optimism) ( $p < .0001$ ;  $F = 19.131$ ). In other words, 69% of individual differences in post-test scores are related to the impact of transactional analysis psychotherapy.

**Table 5.** Multivariate analysis of covariance (MANCOVA)

Model	Test	Value	F	Hypothesis df	Error df	Sig.	Eta
Group interaction and pre-test	Pillai's Trace	0.606	19.131	3	36	.0001	0.69
	Wilks' Lambda	.302	19.131	3	36	.0001	0.69
	Hotelling's Trace	3.257	19.131	3	36	.0001	0.69
	Roy's Largest Root	3.104	19.131	3	36	.0001	0.69

The experimental and control groups differ significantly in their negative automatic thoughts as shown in Table 6 ( $p < .0001$  and  $F = 25.349$ ). By comparing the mean of the experimental group with the mean of the control group, TA psychotherapy reduced the negative automatic thoughts of the experimental group. As such, this means that 48% of individual differences in scores on the negative automatic thoughts post-test can result from the effect of psychotherapy using transactional analysis.

The results in Table 6 clearly show that the experimental and control groups differ significantly regarding optimism during pretest control ( $p < 0.0001$  and  $F = 23.573$ ). Transactional analysis psychotherapy increased optimism among the experimental group because the mean optimism levels were higher than those of the control group. According to a survey, transactional analysis psychotherapy produces an effect size of 0.46. The effect is accounted for by 46% of the individual differences in optimism posttest scores.

**Table 6.** Results of one-way analysis of covariance in MANCOVA text on the mean posttest scores of experimental and control groups with pre-test control

Variables	Source of change	Sum of square	Df	Mean Square	F	P-value
Negative Automatic Thoughts	Pre-test	1408.228	1	1408.228	48.429	0.0001
	Group	737.094	1	737.094	25.349	0.0001
	Error	785.106	38	785.106		
Optimism	Pre-test	1598.346	1	1598.346	20.631	0.0001
	Group	1826.314	1	1826.314	23.573	0.0001
	Error	2091.787	38	77.474		

## Discussion

Study objectives involved assessing the impact of transactional analysis psychotherapy on negative automatic thoughts and optimism of female adolescents with social anxiety disorder. This study has removed pre-test effects, but there was still a significant difference between the means of negative automatic thoughts between the experimental and control groups since the experimental group's means were significantly higher than the control groups. Transactional analysis

psychotherapy was beneficial in reducing negative automatic thoughts in both the experimental and control group at post-test. The variables for this study have never been explored in research before. Previously, no studies have examined the variables of this research. Due to this, only similar papers will be presented in this section, and their analysis explained using this approach. Therefore, this study in terms of the effectiveness of the therapeutic intervention is consistent with studies such as Zahedi, Mojtabaie, and Rafiepour (2021). Torkaman, Farokhzadian, Miri, and

Pouraboli, (2020), Golshan, Hajebi and Sobhi Gharamaleki (2020), Rahmati, Hooshmandi, Mousavi Anzahi and Dehaqin (2019).

Based on the research findings, it can be stated that the client and therapist work together on this to develop an understanding of what is going on and to develop strategies on how to tackle unhelpful thoughts and behaviors. At the beginning of therapy, the client is helped to understand how negative thoughts in relation to the problem lead to emotional and behavioral problems. Clients are taught to become aware of their thoughts and feelings and to recognize when negative thoughts are triggered. When the client has become more aware of unhelpful negative thoughts, the counselor will then help the client understand how these lead to the client's specified emotional and behavioral problems. Helping the client challenge the evidence or disputing the logic of a thought or belief in order to change it is the next step in the counseling process. Homework may be given between sessions and may consist of the client keeping a diary of incidents that provoke negative feelings so that the thoughts surrounding the incident can be looked at in session and the client helped to reality test the distorted automatic thoughts. With the understanding that it is their faulty beliefs that are the cause of their problems the client becomes motivated to change and a method of treatment is developed with the counselor, the individual as part of this process being encouraged to substitute more realistic interpretations and so alter the faulty beliefs and assumptions that have caused them to distort events (van Rijn & Wild, 2016). In the transactional analysis approach, the adult "I" is focused on the present, is here now, and is appropriate to the current situation as a result, the "adult" is always autonomous, and the mental development of the "I" is mature. It is a continuous process. In the decontamination method, contaminated beliefs in the contamination process are carefully examined and challenged. Identifying draft beliefs can lead to their modification (Stewart & Johns, 2009). Thus, by applying techniques of this treatment, people question the validity of thoughts and experiences that do not have supporting evidence. Instead of attributing emotional problems to negative automatic thoughts, the transactional analysis approach emphasizes the root of change, life situations, draft messages, and the play of life (Azadmilajerdi & Niknejadi, 2017). Furthermore, group sessions make it possible to receive feedback from other class members, create empathy, enable participants to observe how others confront negative automatic thoughts, and finally reduce negative automatic thoughts in patients (Tabatabaieichehr, Ebrahimi Sani, & Mortazavi, 2012).

Behavioral analysis training in an intimate atmosphere and with positive emotions, leads adolescents with anxiety disorders to move from cold to

warm cognition and ease in achieving life expectancy, and as a result, motivates adolescents with anxiety disorders to pursue treatment and There will be more improvement (Monajem & Aghayousefi, 2015). Some people, more than others, have a consistent tendency to think, feel and behave, regarding most aspects of their lives, in a way that is unbalanced and inclined toward one of the extremes on the optimism-pessimism continuum; we call them optimists and pessimists. An optimistic person sees good things everywhere, is generally confident and hopeful of what the future holds. From the optimist's point-of-view the world is full of potential opportunities. The pessimist, on the other hand, observes mainly the negative aspects of everything around. Thinking of all the potential dangers and pitfalls on the way, the pessimist is likely to have little hope for the future. Consequently, the pessimist tends to remain passive when encountered with a challenge, believing that his efforts are futile anyway (Hecht, 2013).

TA therapists reported seeing TA as a therapeutic approach, a general attitude and view of the world, and their preferred model in their practice. According to their reports, TA focused on the client's ego states and transactions, social functioning, and self-efficacy, which helped improve their psychological health, self-realization, and general and behavioral well-being. Clients' most frequently reported problems were seen as caused by negative messages early in life (scripts), lack of development of mature coping mechanisms, transgenerational messages, life events, denial of existential givens, and genetics/temperament. Individuals were understood to have some choice in accepting or rejecting the negative impact of these messages and life events via behavior, emotions, and cognitive styles. TA was viewed as helping clients via the therapeutic work with their ego states, social functioning, and self-efficacy. The changes were facilitated by the therapist competencies of positive client-practitioner relationship, working at experiential depth in the here and now, etiological analysis, and providing treatment structure. Thus, TA seems to offer a coherent conceptual framework for psychotherapeutic practice (Vos & van Rijn, 2021).

There were some constraints in this research. For instance, it was just conducted in one of the clinics in Isfahan, Iran; hence, caution should be taken in generalizing results. Moreover, purposeful sampling and time limitation in the data collecting process led to lower accuracy of sampling, which should be taken into account. Therefore, it is recommended to examine the effectiveness of transactional analysis psychotherapy in larger groups of patients with adolescents with social anxiety disorder (both gender) within longer periods. The present study has been associated with some limitations that should be considered in generalizing the

findings. The use of self-report tools and lack of control over interference variables such as education level and social and economic status of participants are the most important of these limitations. Interested researchers are suggested to use other methods of data collection in future research such as interviews and repeat the present research in examples from other cities and regions of the country.

## Conclusion

It can be stated that transactional analysis psychotherapy was a comprehensive technique to impact effectively on negative automatic thoughts and optimism of female adolescents with social anxiety disorder. The reason is that transactional analysis psychotherapy identifies fundamental patterns of thinking and challenges them, emphasizes the relationship therapy, pays attention to past and present moments, uses pattern-breaking of inefficient behaviors, and employs experimental techniques. Accordingly, transactional analysis psychotherapy could take a considerable part in changing temperament, character, and cognitive emotion regulation strategies among patients.

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