

The effect of narrative therapy on anger control of high school adolescent girls: a quasi-experimental study

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Abstract

Introduction and Aim: According to psychological and biological conditions during puberty in adolescent girls, anger management in them is important. Studying the effect of narrative therapy on anger control in high school adolescent girls in Isfahan, Iran is the study's purpose.

Methods: This study is a quasi-experimental interventional study which is included two groups including control and intervention with pretest-posttest design. This study was conducted on 72 female students aged 14-17 years using convenience sampling. Then the samples were allocated into two groups: an intervention group (n=36) and a control group (n=36). Data were collected using Spielberger Anger Questionnaire. Adolescents in the intervention group participated in 90-minute 8 sessions of narrative therapy virtually. Data analysis was conducted using SPSS software version 25 and chi-square, independent t-tests, and analysis of covariance.

Results: Independent t-test showed that before the intervention, the mean score of anger control was not significantly different between the two groups ($P < 0.05$), but after the intervention, in the intervention group, it was significantly lower than the control group ($P < 0.01$). LSD post hoc test also showed that the mean anger control score in the intervention group was significantly reduced ($P < 0.001$).

Conclusion: According to the findings based on the effectiveness of narrative therapy on controlling adolescent anger, it is recommended to psychotherapists, especially school counselors, use this therapeutic approach to control adolescent anger.

Keywords: Narrative therapy, anger, adolescents, quasi-experimental study.

Introduction

Adolescence is a critical period in life that involves a transition from childhood to youth. This period consists of three stages: early adolescence (ages 10-13), mid-adolescence (14-16), and late adolescence (17-20). This period involves physical, intellectual, psychological, and social changes (1). These changes bring about the possibility of anger among adolescents. Anger is one of the most common emotions that is induced in adolescence. It is the most problematic emotion of this period (2),

since it may lead to aggression if left uncontrolled. Aggression is mostly abnormal and destructive behavior. Due to the lack of effective communicative skills, adolescents cannot control their behaviors and the anger is shown up as aggression (3). Aggression is mostly physical in boys and indirect and verbal in girls (4). Also, the intensity of aggression is higher in boys than girls (5).

Anger and impulsiveness incur various negative impressions; specifically, it is one of the most powerful predictors of violence (6). In addition, it is negatively related to academic achievement, adaptation (7), self-confidence, and optimism (8). Also, anger has a major share in serious psychological damages such as depression (9).

Considering the negative consequences of anger, using anger control strategies in adolescents is necessary concerning their biological and psychological conditions and changes during adolescence (10). Anger control means the achievement of relevant skills and lowering emotional states and physiological excitement, which provides solutions to preventing various risky behaviors (11). Till now, various approaches and methods have been used to control anger, each being partly successful. One of the postmodern approaches to this issue is narrative therapy, where it is believed that people give meaning to their life and experiences considering the narratives and stories of others' lives. The existence of problematic narratives leads to negative experiences in life. This approach includes methodologies to understand the stories of people's lives as well as to revising and re-writing them. Narrative therapy is a process that helps people overcome their problems through therapeutic conversations (12). Various studies have been performed on the effect of narrative therapy on adolescents. Qavami et al. (2014) studied the effect of narrative therapy on social anxiety and self-esteem of female middle school students in Isfahan and showed that narrative therapy is significantly effective on social anxiety and self-esteem of the intervention group (13). Qaderi et al. (2010) investigated the effectiveness of combined group therapy with re-decision making and narrative therapy on emotion control in adolescents in Shiraz and showed that a combination of the two approaches had a significant effect on emotion, anger, and positive emotions (14). Another study aiming at investigating the effectiveness of narrative therapy on mental rumination and anxiety of male high school students in the town of Lali indicated that narrative therapy is effective on mental rumination of students (15). Despite the significance of using this approach in adolescents to promote their mental health, only a few studies research have been done to evaluate the effectiveness of narrative therapy in this population. Therefore, the present study is to investigate the effect of narrative therapy on anger management in female adolescents in selected high schools in Isfahan in 2020.

Methodology

This is an interventional, quasi-experimental, online study with control and intervention groups in a pre-test post-test design. The statistical population included adolescent students aged 14-17 studying at selected high schools in Isfahan. The sample size was calculated to be 32 using the formula $n = \frac{(Z_1 + Z_2)^2 \times (2S^2)}{d^2}$ taking into account $\alpha=0.05$, $\beta=20\%$ and $d=0.7$. Considering the sample drop, 36 students were included in each group. The study sample included 72 students studying at selected high schools in Isfahan who were selected through convenience sampling, who were randomly assigned to intervention and control groups of 36 students each. The randomization ratio was 1 to 1. Inclusion criteria were access to Whatsapp and willingness to participate in the study. These criteria were realized by asking the participant. The exclusion criteria were experiencing serious traumas during the last 6 months, participating in psychotherapy courses at the same time with the study, non-attendance in the counseling sessions, whether in- or out-of-school and finally, absence from 2 consecutive narrative therapy sessions.

In this study, the State and Trait Anger Expression Inventory (STAXI-2) was used to collect the data. This questionnaire includes three sections and 57 items. The first section addresses anger state, the second addresses anger trait, and the third addresses anger expression and control. Each item in the questionnaire is scored through a 4-point Likert scale from 1=never to 4=always. The total

score of the questionnaire could be from 0 to 96. Scales and subscales of the questionnaire are introduced briefly below.

Anger state inventory: Consists of 15 items measuring the anger intensity and the willingness of the participant to express verbal-physical anger. This inventory consists of two subscales each involving four items: angry temperament and angry reaction.

External anger expression inventory: Consists of 8 items measuring the frequency of anger emotion which is expressed with physically aggressive behavior toward individuals or objects in the environment.

Internal anger expression inventory: Consists of 8 items measuring the frequency of anger emotion which is experienced but not expressed (suppressed).

External anger control inventory: Consists of 8 items measuring the frequency of anger emotion which is expressed with verbal aggressive behavior toward individuals or objects in the environment.

Internal anger control inventory: Consists of 8 items measuring the cases where the individual tries to control his/her anger through calming.

Asghari Moghaddam et al. (2008) investigated the reliability and validity of the Persian version of the Spielberger Anger Questionnaire in a student population. The results indicated that considering Cronbach's alpha of 0.73, the Persian version of the questionnaire has sufficient reliability, including retest and internal consistency (16).

Considering the limitations of face-to-face studies due to the Corona Pandemic, the questionnaire was implemented in the Porsline environment and the link of the questionnaire was sent to students using Whatsapp, and descriptions were provided as to how to enter the questionnaire page and how to answer the questions.

After obtaining the code of ethics from Isfahan University of Medical Sciences (IR.MUI.RESEARCH.REC.1399.461) as well as a letter of recommendation from the School of Nursing and Midwifery and presenting it to the school liaison in the Department of Health, the researcher could achieve the permission to conduct the research. Then it was submitted to the Education Department of Isfahan. According to the recommendation of the Department of Education, District 1 of Isfahan was selected to research due to the better access of the researcher to the district and coordination of the Department of Education with schools in this area. The schools were then selected at the discretion of the General Education Department regarding that both research environments are located approximately in the same area of the city and there is no possibility of a connection between the intervention and control groups. The Shahed Zohur high school was selected as the intervention group and the Shirani high school as the control group. The letter of recommendation was then submitted to the relevant school officials and the objectives of the research as well as intervention methodology were described. After obtaining permission from the school principal and considering the Corona pandemic holding classes in an online environment at all educational grades, and by coordinating with the university faculty and the second researcher, the importance of anger, its prevalence among students, its adverse consequences, nature and stages of narrative therapy were described to the school principal. Observing the privacy of students and obtaining their parents' content, the samples were selected from among the students who were willing to participate in the study.

To hold the online narrative therapy sessions, the students of both groups joined the Whatsapp group under the supervision of the school principal. The electronic version of the informed consent letter was uploaded in the group and the parents of the students were asked to read and confirm the consent letter personally. The narrative therapy sessions included eight 90-min sessions held for 1 month (2 sessions per week). The structure of these sessions is provided in Table 1. On days between the sessions, the students could ask any questions in the public group or on a private page. The researcher answered the questions. The data were collected two times, i.e. before intervention and at the last intervention session. After the post-test and when the questionnaires were completed, the manual of the sessions was also given to the control group to observe the ethical considerations.

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Data were analyzed through SPSS (version 25, SPSS Inc., Chicago, IL, USA), and the Kolmogorov-Smirnov, Chi-square, and independent t-tests and covariance analysis were used for inter-group mean comparisons. The significance level was <0.05.

Table 1. Narrative therapy session plan

Sessi on	Activity	Duratio n (min)
1	Preparation of the participants and getting them to know each other Asking members to express their objectives and expectations for attending the sessions Explaining the basic rules such as regular attendance, the confidentiality principle, giving value to members and providing a participatory and group description of the sessions Defining the objective by the researcher Encouragement of participants to ask questions and express their ambiguities (Q&A)	45
2	Listening carefully to the participants' problems (Each member tells her anger-filled life story) Helping participants separate themselves from their problems by externalizing the them Listening carefully to each individual's beliefs, words, and metaphors when expressing her difficulties Using a common name for the problem according to the priorities of the beliefs and words of each participant	60
3	Re-externalization and separation of the problem from the identity of each individual Problem statement with the help of group members Narrating events in which, during shared experiences, the individual's problem has not been suppressed and the individual has gained better results Helping people counteract the externalized problem by focusing on each person	60
4	Re-addressing the description of problematic narratives and externalizing them by the participants, in such a way that they differentiate themselves and the problem Encouraging participants to go into details in order to reveal their ideas and beliefs Deconstruction of problematic narratives Helping participants gain awareness and power and introducing hope by sharing specific consequences of the problems of each individual	90
5	Linking problem experiences of each participant to the past events Generalizing the narrative to the future Asking every participant about any exceptions and unique cases where each person has not had a problem under pressure Focusing on the details of the feelings, thoughts, and behaviors of these unique cases	90
6	Encouragement of participants to form their own alternative and preferred narrative in which she seems to be more powerful than the problem Talking about positive experiences and alternative narratives	90

Retelling and consolidating alternative narratives		
7	Encouragement of participants people to retell the alternative narratives Encouragement and strengthen participants to express thoughts, feelings and desires positively Encouragement of participants to share their stories and review unpleasant memories of the past	90
8	Analyzing new stories from participants Prediction of potential problems Final edition of the new narrative Playing a role in the new life story Summarizing all the sessions and encouraging participants to express their opinions and ideas about the course	45

Findings

Using the chi-square test it was found that there was no significant difference in demographic variables such as mother's education level, mother's job, father's education level, father's job, and family income between the intervention and control groups. A comparison of demographic characteristics between the two groups is provided in Table 2.

Table 2. Comparison of demographic characteristics in intervention and control groups

Group Variable	Control		Intervention		Chi square test	Significance level
	Quantity	Percentage	Quantity	Percentage		
Mother's education level						
Illiterate	2	6.5	3	3.8	354.0	950.0
University degree	8	2.22	7	4.19		
Diploma	17	2.47	18	50		
High school	9	25	8	2.22		
Total	36	100	36	100		
Mother's job						
Self-employed	3	3.8	2	6.5	552.0	907.0
Retired	1	8.2	1	8.2		
Housekeeper	27	75	26	2.72		
Employee	5	9.13	7	4.19		
Total	36	100	36	100		
Father's education level						
Illiterate	3	3.8	2	6.5	052.3	384.0
University degree	15	7.41	9	25		
Diploma	11	6.30	17	2.47		
High school	7	4.19	8	2.22		
Total	36	100	36	100		
Father's job						
Self-employed	15	1.36	17	2.47	550.4	208.0
Retired	7	3	2	6.		
Housekeeper	3	33.8	7	4.19		
Employee	11	6.30	10	8.27		

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Total	36	100	36	100		
Family income						
More than expenses	1	8.2	1	8.2	701.1	427.0
Equaling expenses	27	75	22	1.61		
Lower than expenses	8	2.22	13	1.36		
Total	36	100	36	100		

The results also indicated that the significance level obtained from the Kolmogorov-Smirnov test is >0.05 for dependent variables. So, there was a normal distribution in the data (Table 3).

Table 3. Test of normality of dependent variables

Variable	Test statistic	Significance level
Anger emotion	93.0	35.0
Verbal tendency	99.0	27.0
Physical tendency	58.0	58.0
Angry temperament	81.0	51.0
Angry reaction	55.0	92.0
External expression	93.0	35.0
Internal expression	55.0	92.0
External control	72.0	67.0
Internal control	59.0	87.0

Table 4 indicates the mean and standard deviation of anger management in the intervention and control groups before the intervention. The results showed that the means of studied variables in the two groups were not significantly different before the intervention. Table 5 shows the mean and standard deviation of anger management scores in the control and intervention groups after the intervention. The means of the studied variables in the control and intervention groups were significantly different in the post-interventional stage ($p < 0.01$).

Table 4. Comparison of mean anger control score and its scales in control and intervention groups before intervention

Group Variable	Control		Intervention		T test	Significance level
	Mean	SD	Mean	SD		
Anger emotion	94.2	92.0	11.3	71.0	859.0-	393.0
Verbal tendency	06.3	89.0	03.3	77.0	141.0	888.0
Physical tendency	22.3	83.0	03.3	77.0	027.1	308.0
Angry temperament	06.3	63.0	17.3	61.0	761.0-	449.0
Angry reaction	3	68.0	06.3	67.0	349.0-	728.0
External expression	22.3	42.0	06.3	47.0	575.1	120.0

Internal expression	06.3	53.0	08.3	55.0	217.0	829.0
External control	89.1	53.0	94.1	47.0	472.0-	638.0
Internal control	89.1	52.0	89.1	57.0	131.0	981.0

Table 5. Comparison of mean anger control score and its scales in control and intervention groups after intervention

Group Variable	Control		Intervention		T test	Significance level
	Mean	SD	Mean	SD		
Anger emotion	03.3	74.0	61.1	77.0	258.6	P<01.0
Verbal tendency	06.3	75.0	86.1	72.0	860.6	P<01.0
Physical tendency	17.3	77.0	94.1	67.0	143.7	P<01.0
Angry temperament	06.3	72.0	86.1	72.0	047.7	P<01.0
Angry reaction	17.3	65.0	94.1	71.0	565.7	P<01.0
External expression	19.3	52.0	06.2	63.0	334.8	P<01.0
Internal expression	06.3	63.0	89.1	67.0	632.7	P<01.0
External control	89.1	67.0	17.3	77.0	716.7-	P<01.0
Internal control	81.1	58.0	06.3	75.0	902.7-	P<01.0

To investigate the feasibility of covariance analysis, the equivalence of covariance matrices was determined by the M Box test. The test results showed a significance level of P=0.445 for the study variables. So, it can be concluded that the variances of post-test variables were equal in both groups and there was no significant difference between them. Therefore, the presumption of equivalent covariance matrices was confirmed.

According to the results of covariance analysis of the effect of the narrative therapy intervention on anger management in Table 6, it was shown that there was a significant difference between the mean scores of anger in the intervention and control groups in the posttest and after the elimination of the pre-test effects.

Table 6. Results of analysis of covariance of the effect of narrative therapy intervention on anger control

Dependent variables	Sum squares	of	Degree of freedom	Mean squares	F	significance level	Effect size
Anger emotion	516.20		1	516.20	877.40	P<01.0	425.0
Verbal tendency	509.23		1	509.23	806.53	P<01.0	514.0

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Physical tendency	579.19	1	579.19	879.90	P<01.0	760.0
Angry temperament	307.28	1	307.28	454.72	P<01.0	552.0
Angry reaction	648.2	1	648.2	630.93	P<01.0	675.0
External expression	721.18	1	721.18	005.62	P<01.0	543.0
Internal expression	635.23	1	635.23	093.60	P<01.0	482.0
External control	889.25	1	889.25	600.89	P<01.0	679.0
Internal control	852.25	1	852.25	577.82	P<01.0	627.0

Discussion

This is a quasi-experimental study aiming at the investigation of the effect of narrative therapy as the independent variable on anger management in female adolescents as the dependent variable. This study evaluated the effect of a single intervention and is innovative in this regard among the domestic and foreign studies. The results indicated that there was a significant difference between the control and intervention groups. Also, at the posttest stage, the studied participants in the intervention group were in a better situation than the control group in terms of anger control. The results of our study on the effectiveness of this counseling method for anger management are in line with those of Bahmani and Barzegar (2018) (17) and Mirdamadi and Arshad (2017) (18) these studies analyzed the effectiveness of narrative therapy on children and their results indicated that this method has been significantly effective in controlling anger and aggression in this age group.

On the effective mechanism of narrative therapy on anger control in adolescents, it can be said that this treatment method considers the problems of adolescents as painful stories and problems laid down in the mind of the individual. The students could extract the difficult life story from within the various life stories according to their exclusive conclusions which they hadn't paid attention to before. Initially, they saw their lives drowned with problems. They alluded only to the problems of their lives when telling their stories. Using this method, by redefining their problems instead of seeking anger and aggression, the students learned to use more effective coping strategies. So, in the process of making new stories, a personal obligation feeling was established in the participants which enabled them to control their anger more successfully.

There are multiple limitations in this study: firstly, since the convenient sampling method was used in the present study, the results should be generalized with caution. Second, self-reported questionnaires were used in this study, where the responses may not completely confirm the reality. Third, the random assignment could not be used in this study considering the constraints of the Education Department. So, in the interpretation of the results, caution should be used when assigning the consequences or the dependent variable to the intervention, i.e. narrative therapy.

Considering the effectiveness of narrative therapy on the components of anger control in female adolescents, it is recommended that, in further studies, the effectiveness of this method is compared to the common and widely used approaches such as cognitive therapy and problem solution. It is also recommended that further studies investigate the effectiveness of such intervention on male students. In addition, considering that the present study investigated the effect of narrative therapy immediately after the intervention, it is recommended that the future studies, the follow-up is performed at various intervals after the intervention and their results are compared.

Conclusion

According to the findings, narrative therapy could improve the score of anger control of female students in the intervention group compared to the control group. Narrative therapy paved the way for the enhancement of anger control skills, thus improving the self-control of anger in students. Therefore, with the illustration of the status of adolescents with anger, this study could help school nurses, school counselors, and teachers to achieve a proper pattern of educational courses to control anger.

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