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Original Article

The effectiveness of narrative group therapy on resilience, functional disability and psychological distress of patients with chronic schizophrenia

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Abstract

This study aimed to investigate the effectiveness of narrative group therapy on resilience, functional disability, and psychological distress of patients with chronic schizophrenia. The current research method was quasi-experimental with pre-test, post-test, and follow-up with control and experimental groups. The population of the research included men aged 20 to 60 with chronic schizophrenia in Ardabil in 2023 who were hospitalized in treatment and rehabilitation centers for chronic psychotic patients, and their number was estimated to be around 250. Convenience sampling was used due to the impracticality of gathering patients from other centers for group therapy. One treatment and rehabilitation center for chronic patients was selected through this method based on the availability of the required sample size and the level of cooperation. After reviewing the psychological files and considering the inclusion criteria, 30 participants were selected and randomly divided into experimental (n=15) and control (n=15) groups. Both the control and experimental groups answered the Connor-Davidson Resilience Scale, the WHO Disability Assessment Schedule, and the Psychological Distress scale before, after, and one month after the intervention, and their data were compared with the use of descriptive statistics and analysis of variance with repeated measurements analyzed in $SPSS_{22}$ software platform. The results showed that resilience, functional disability, and psychological distress (anxiety, stress, and depression) have a significant difference from the pre-test stage to the follow-up stage. Therefore, it can be concluded that narrative therapy leads to the improvement of resilience, functional disability, and psychological distress of chronic schizophrenia patients.

Keywords

Narrative group therapy
Resilience
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Psychological distress
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Introduction

Individuals with chronic mental and neurological disorders face numerous challenges in terms of mental health, affecting not only their daily lives but also the lives of those around them (Percudani et al., 2023). Schizophrenia is a psychological disorder often characterized by debilitating individual and social functioning. It is associated with positive symptoms (hallucinations and delusions), negative symptoms (anhedonia, emotional unresponsiveness, limited speech, social withdrawal, antisocial behavior, and psychomotor retardation), and disorganized thinking (Jauhar et al., 2022). Although the global majority of schizophrenia is estimated to be about one per cent, it is one of the leading causes of disability worldwide, with approximately 60 per cent of cases following a chronic course (Kane et al., 2020). Furthermore, individuals with schizophrenia often struggle with other psychological disorders such as depression, anxiety, substance abuse, and physical illnesses like infectious diseases, diabetes, respiratory diseases, and cardiovascular conditions (Buckley et al., 2009; Oud & Meyboom-de Jong, 2009; Walker et al., 2015). The comorbidity of physical and psychological illnesses complicates the achievement of treatment milestones in patients with schizophrenia. It imposes various costs on the healthcare system, including unemployment, the need for social support, and hospitalization in chronic psychiatric and residential care facilities (Millan et al., 2016).

Individuals with schizophrenia and related psychotic disorders are less likely to seek treatment compared to other mental health disorders; however, once they begin treatment, their duration of care tends to be longer (Fernandez et al., 2023). The chronic nature of mental

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and neurological disorders fosters a perception that psychotic spectrum disorders are lifelong and untreatable, leading to prolonged hospitalizations for psychiatric patients (Shinjo et al., 2017). According to DeLuca et al. (2022), the extended treatment duration and increased hospitalization time highlight a lack of resilience in patients. Researchers define resilience as a dynamic capacity in individuals that develops over their lifetime and through facing challenges and adversities, influenced by both internal and external resources (Rosenberg, 2020; Stainton et al., 2019). Ungar and Theron (2020) also describe resilience as a form of psychological capital associated with positive mental health outcomes, enabling individuals to exhibit greater flexibility in adversity. Few studies have examined the role of resilience in patients with schizophrenia; (Mizuno et al., 2016) found that individuals with schizophrenia exhibit lower resilience compared to their healthy counterparts. Wambua et al. (2020) concluded that enhancing resilience is associated with improved psychosocial functioning in patients with schizophrenia.

Functional disability is another negative symptom of schizophrenia, which can significantly impact patients' daily activities (including physical functioning, self-care skills, interpersonal relationships, competence, and efficiency), leading to a decreased quality of life due to its substantial burden on patients (Shamsi et al., 2011). According to the (WHO, 2008), functional disability is a long-term activity limitation due to a health condition or problem. In schizophrenia, functional disability results in a considerable reduction in quality of life (Charlson et al., 2018). Furthermore, functional disability disrupts behavioral processes and interferes with patient participation, leading to prolonged treatment durations and chronicity of the illness in these individuals (Shamsi et al., 2011).

Many individuals with schizophrenia are also diagnosed with comorbid disorders such as depression or anxiety (Moritz et al., 2019). Post-psychotic depression in schizophrenia is widespread, with about twenty per cent of individuals with chronic schizophrenia experiencing depression (Upthegrove et al., 2017). Additionally, 80 per cent of patients with early-stage schizophrenia experience at least one episode of depression (Bergmann et al., 2021). Psychological distress and the presence of depressive symptoms in chronic schizophrenia patients are so prevalent that (Krynicki et al., 2018), in a meta-analysis, suggest that depressive and anxiety symptoms should be separated from positive and negative symptoms of the disease and categorized independently. Moreover, anxiety and stress symptoms are also common in schizophrenia, with research showing that about 65 per cent of patients with schizophrenia experience a range of anxiety disorders, the most common being social anxiety disorder (Edwards et al., 2019). The presence of psychological distress (depression, anxiety, and stress) in individuals with schizophrenia is associated with impaired daily functioning, reduced self-esteem, relapse, and suicide, highlighting the necessity for crisis intervention and treatment (Buonocore et al., 2018).

Current therapeutic approaches for schizophrenia and related psychotic disorders prioritize antipsychotic medications as the first line of defense; however, clinical management of the disease requires additional interventions to improve daily functioning (Kart et al., 2021). Support systems extending beyond antipsychotic medications may include social skills training, day treatment programs, and other rehabilitation and psychosocial intervention techniques (Gürcan et al., 2021). Standard treatment approaches in schizophrenia are typically not insight-based and are often individual treatments aimed at rehabilitation in a specific area (Kart et al., 2021). Therefore, efforts are being made to implement a new insight-based approach for treating schizophrenia patients in a group setting. Group therapy using a narrative approach provides an opportunity for an insight-based intervention with content that is digestible for chronic schizophrenia patients (Chae & Kim, 2015).

Rosenberg (2020) used narrative therapy approaches as a method for group therapy with adults experiencing mental illness in an outpatient setting; his study demonstrated that the group process can be measured as an effective form of therapy through the cohesion of themes and the emergence of insights observed in the members' responses. In Rosenberg's study, cohesion was identified as "a sense of acceptance, belonging, and value in group membership," and insight was classified as "new perceptions of oneself or others." Additionally, another study by Chae and Kim (2015) showed that narrative group therapy positively impacted adolescents diagnosed with schizophrenia, improving their communication competence.

Overall, narrative therapy focuses on empathy and communication to aid in treating patients. Initially, patients must express their feelings about their lives in a daily program at a residential center for chronic psychiatric patients. Subsequently, they must introduce their doctor, nurse, psychologist, social worker, family, and friends as their "Narrative Kind" Ultimately, they can experience freedom of communication and mutual understanding. In other words, this therapeutic method aims to improve the patient's condition through narrative therapy analysis, which focuses on the patient's environment, the causes of their sense of disconnection, and their absence from daily life (Lopes et al., 2014).

Given the issues mentioned above, chronic schizophrenia patients experience numerous negative symptoms, such as functional disability and psychological distress. These conditions are exacerbated by prolonged hospitalizations in treatment and rehabilitation center for chronic patients, challenging their resilience. In such circumstances, conventional drug treatments and stereotypical individual therapies must be replaced with more innovative and group-based treatments to evaluate and implement their effectiveness widely in these centers. Therefore, the present study seeks to answer the question: Is narrative group therapy effective in improving resilience, functional disability, and psychological distress in chronic schizophrenia patients?

Method

Participants

The present study was a quasi-experimental design with pre-test, post-test, and follow-up stages, including a control group. The study participants included men with chronic schizophrenia in Ardabil city in 2023 who were hospitalized in a treatment and rehabilitation center for chronic patients, totaling approximately 250 individuals. A convenience sampling method was used due to the impracticality of gathering patients from other centers for group therapy. By this method, 30 participants were selected and equally divided into experimental (n=15) and control (n=15) groups.

Instrument

Connor-Davidson Resilience Scale (CD-RISC):

The Connor-Davidson Resilience Scale (2003) was developed to assess resilience in clinical populations. This tool consists of 25 items rated on a 5-point Likert scale ranging from zero (never) to four (always). The score range in this tool is from zero to 100, with higher scores indicating greater resilience (Connor & Davidson, 2003). The reliability of this tool in Iran for patients with schizophrenia was evaluated by Rezapour-Mirsaleh et al. (2023) with a Cronbach's alpha coefficient of 0.86, and its validity was also found to be satisfactory. In the present study, the reliability was also obtained with a Cronbach's alpha of 0.79.

World Health Organization Disability Assessment Schedule (WHODAS 2.0):

The World Health Organization Disability Assessment Schedule (WHODAS 2.0) is a comprehensive tool developed by the (WHO, 2008) to assess disability in patients with chronic pain. It includes 36 items covering six subscales: cognition, mobility, self-care, getting along, life activities, and participation. It is rated on a 5-point Likert scale from zero (never) to five (Completely). The score range in this tool is from 36 to 180, with higher scores indicating greater disability. The scale has been normalized in Iran by Salehi et al. (2016), with satisfactory validity and reliability ranging from 0.82 to 0.99 using Cronbach's alpha method. In this study, the reliability of this tool was evaluated with a Cronbach's alpha of 0.76.

Depression, Anxiety, and Stress Scale (DASS):

The Depression, Anxiety, and Stress Scale was developed by Lovibond and Lovibond (1995) to measure stress, anxiety, and depression. It consists of 21 items and 3 subscales, rated on a Likert scale from zero (does not apply to me at all) to three (applies to me very much, or most of the time). This short form is a condensed version of the original 42-item scale, and the final score for each subscale should be doubled. For depression, scores range from 0 to 9 (normal), 10 to 13 (mild), 14 to 20 (moderate), 21 to 27 (severe), and above 28 (very severe). For anxiety, scores range from 0 to 7 (normal), 8 to 9 (mild), 10 to 14 (moderate), 15 to 19 (severe), and above 20 (very severe). For stress, scores range from 0 to 14 (normal), 15 to 18 (mild), 19 to 25 (moderate), 26 to 33 (severe), and above 33 (very severe). The validity of this scale was found to be satisfactory by (Akhavan Far, 2021), and its Cronbach's alpha coefficient for measuring reliability for depression, anxiety, and stress, and the total scale was evaluated as 0.81, 0.74, 0.78, and 0.83, respectively. In the present study, the reliability was evaluated with a Cronbach's alpha of 0.83 for depression, 0.88 for anxiety, and 0.75 for stress.

Narrative Therapy Protocol:

Based on postmodern philosophy, narrative therapy is a relatively new approach proposed to reduce the impact of a problem on individuals and their families. This method refers to the inclination of humans to construct a narrative (story) of events in life (Zadeh-Mohammadi et al., 2013). The narrative therapy protocol by Lopes et al. (2014) was used as the reference for therapeutic interventions in this study, which was validated and found to be reliable in the Iranian context by (Jafari et al., 2019). The description of these sessions is provided in Table 1.

Procedure

One treatment and rehabilitation center for chronic patients was selected based on the availability of the required sample size and the level of cooperation. After reviewing the psychological files and considering the inclusion criteria (chronic schizophrenia diagnosis, age between 20 and 60 years, at least two years of hospitalization, no acute episodes before intervention, literacy, family consent, psychologist and technical manager consent, and voluntary participation), 30 participants were selected and equally divided into experimental (n=15) and control (n=15) groups.

The experimental group underwent a 10-session, 60-minute narrative therapy protocol by Lopes et al. (2014), a well-established and widely used intervention in the field. In contrast, the control group did not receive any such intervention. Both groups continued to receive routine medical and psychiatric care, with narrative therapy added to the experimental group's routine treatment. To measure the effectiveness of the intervention, both groups completed the Resilience Scale (CD-RISC) (Connor & Davidson, 2003), the WHO Disability Assessment Schedule (2008), and the Depression Anxiety Stress Scales (DASS) (Lovibond & Lovibond, 1995) before, immediately after, and one month following the intervention. These instruments were thoroughly examined in the study to measure the relevant outcomes. Data were analyzed using repeated measures analysis of variance (ANOVA) in $SPSS_{22}$.

Table 1. Structure and Content of Narrative Therapy Sessions by Lopes et al. (2014)

Session	Objective	Session Description
1	Introduction and Goal Explanation	In this session, the group's goals and rules are explained, and the therapist assures the patients that confidentiality will be maintained; patients are encouraged to participate in the group.
2	Valuing Therapeutic Content and Focusing on the Patient	Explanation of therapeutic goals, values, and content, creating a shared therapy situation, and focusing on the patient; describing the problematic story and paying attention to the details of patient conversations; providing education on terminology and language; encouraging patients' group participation.
3	Separating Problems from Identity and Detaching Them	Listen carefully to patients' language, words, and metaphors; use externalizing language and separate problems from identity and patient communications; examine each patient's narrative from the perspective of other group members; encourage patients to participate in the group.
4	Challenging Beliefs and Reactions to Problems	Challenging the narrative and providing an alternative view of the problem to individuals; patients addressing externalizing the problem and creating a distinction between themselves and the problematic narrative; encouraging patients to ask impactful questions and prepare for presenting a reframed framework about the problem; encouraging patients for their group participation.
5	Deconstructing Problematic Narratives	Naming the narrative containing the problem, recontextualizing it, or applying a new label to the problem; introducing alternative narratives; helping patients gain awareness, power, and a sense of personal agency and hope through discussing unique consequences; starting different reactions to narratives formed during the stay at the rehabilitation center; encouraging patients for their group participation.
6	Emphasizing Feelings and Issues	Questioning patients about exceptions and special cases (times when the patient was not under pressure from the problem); focusing on and emphasizing the details of feelings, thoughts, and behaviors when specific and special situations arise; encouraging patients' group participation.
7	Teaching Important Skills	Discussing essential people in the patient's life in the past and present (to recall unresolved issues); teaching various skills (speaking, expressing feelings and thoughts, assertiveness: allowing each person to speak for themselves and express their feelings and thoughts, then state their desires) – (listening, storytelling, forgiveness: requesting patients to write a letter, forgive, forget, or leave behind bullies and abusers, and those who have caused unpleasant memories for the patient in the past); encouraging patients for their group participation.
8	Highlighting Positive Past Experiences	Reviewing memories and possible actions of the patient about the topics of the previous session; discussing positive experiences and alternative narratives; reiterating and reinforcing alternative narratives; confirming and validating patients' alternative narratives; evaluating results and addressing shortcomings; encouraging patients for their group participation.
9	Creating Change in Patient Goal Setting and Emphasizing Reality	Employing new elements in the narrative; prioritizing goals, wishes, objectives, and essential people in life; changing the patient's life framework; relying on the patient's strengths; analyzing the relationship between the new narrative and the patient's life; progressing to the new narrative and the crisis point, preparing patients for the end of sessions; encouraging patients for their group participation.
10	Session Conclusion	Continuing sessions with the theme of rewriting the life narrative, reviewing the fresh stories of individuals, predicting potential problems, finalizing the new narrative, playing a role in the new life narrative, and encouraging patients for their group participation.

Results

As mentioned, 30 chronic schizophrenic patients were enrolled in the study; 3 of these patients were married, 25 were single, and two were divorced. Four patients had literacy skills, 24 were in grades five through twelve, and 2 had diplomas. Fourteen patients had no history of addiction, while 16 patients had a history of substance abuse. The minimum stay at the center was one year, and the maximum duration was 17 years. Additionally, the mean and standard deviation of the length of hospital stay for patients in the study were 6.4 ± 50.4. The mean and standard deviation of the variables in the study are mentioned in Table 2.

Table 2. Distribution of mean and standard deviation of variables in experimental and control groups

Variable	Group	Stage	Mean	Standard Deviation
Resilience	Experiment	Pre-test	38.20	9.112
		Post-test	56.27	13.440
		Follow-up	56.33	12.419
	Control	Pre-test	29.13	8.331
		Post-test	34.27	11.074
		Follow-up	35.73	9.838
Anxiety	Experiment	Pre-test	13.40	1.595
		Post-test	8.27	1.223
		Follow-up	9.47	1.959

	Control	Pre-test	14.13	1.685
		Post-test	14.13	0.915
		Follow-up	14.60	1.993
Depression	Experiment	Pre-test	14.93	2.086
		Post-test	10.87	2.475
		Follow-up	11.67	2.554
	Control	Pre-test	13.53	2.748
		Post-test	13.47	2.100
		Follow-up	13.47	2.696
Stress	Experiment	Pre-test	9.47	1.356
		Post-test	1.356	1.751
		Follow-up	7.27	1.676
	Control	Pre-test	9.13	2.232
		Post-test	9.67	2.820
		Follow-up	10.13	2.669
Functional Disability	Experiment	Pre-test	67.27	12.970
		Post-test	60.60	12.460
		Follow-up	64.53	12.512
	Control	Pre-test	79.93	9.699
		Post-test	76.33	9.348
		Follow-up	78.20	10.943

An analysis of variance (ANOVA) with repeated measures was conducted to examine the statistical significance of observed changes in resilience means. Before conducting this test, its assumptions, including the homogeneity of variances, normality of data and the sphericity assumption, were assessed, and these assumptions were met (Sig $_{\text{levene's test}}$=0.310, Sig=0.289; Chi-Square=2.486; Mauchly's W=0.912). The results of the ANOVA for resilience with repeated measures are reported in Table 3.

Table 3. Results of Analysis of Variance with Repeated Measures for Resilience

Source of Variance	Effect	Sum of Squares	DF	Mean Squares	F-Value	Sig	Eta Squared
Time	Within Groups	2880.822	2	1440.411	49.950	p<0.001	0.641
Time*Group		755.622	2	377.811	13.101	p<0.001	0.319
Error		1614.889	56	28.837			
Group	Between Groups	6673.611	1	6673.611	22.569	p<0.001	0.446
Error		8279.378	28	295.692			

As Table 3 indicates, the effect of time (p<0.001; F=49.95; η^2=0.64), group (p<0.001; F=22.569; η^2=0.44), and the interaction effect of time*group (p<0.001; F=13.101; η^2=0.319) on resilience is significant, indicating a meaningful difference between the two groups. This difference was further examined using the Bonferroni post-hoc test, and the results are presented in Table 4.

Table 4. Bonferroni Post-hoc Test Results for Comparing Resilience

Variable	Time I	Time J	Mean Difference (I-J)	Standard Error	Sig
Resilience	Pre-test	Post-test	-11.600*	1.300	p<0.001
		Follow-up	-12.367*	1.578	p<0.001
	Post-test	Pre-test	11.600*	1.300	p<0.001
		Follow-up	-0.767	1.261	1
	Follow-up	Pre-test	12.367*	1.578	p<0.001
		Post-test	0.767	1.261	1

Based on Table 4, there is a significant difference in resilience scores between the pre-test and post-test phases (p<0.05); in other words, the resilience of schizophrenic patients has increased after the intervention. Additionally, scores significantly differ between the pre-test and follow-up phases (p<0.05); indicating that the narrative therapy intervention has been effective over a longer period. However, no significant difference in resilience scores between the post-test and follow-up phases was found. An analysis of variance was conducted with repeated measures to examine the statistical significance of observed changes in the means of psychological distress. Before conducting this analysis, its assumptions were assessed, including the data's normality and the sphericity assumption. This assumption held true for anxiety (Sig=0.335, Chi-Square=2.185, Mauchly's W=0.922), depression (Sig=0.095, Chi-Square=4.705, Mauchly's W=0.840), and stress (Sig=0.630, Chi-Square=0.922, Mauchly's W=0.966). The results of the analysis of variance with repeated measures for psychological distress (anxiety, depression, and stress) are reported in Table 5.

Table 5. Results of Analysis of Variance with Repeated Measures for Psychological Distress (Anxiety, Depression, and Stress)

Variable	Effect	Source of Variation	Sum of Squares	DF	Mean Squares	F Value	Sig	Eta Squared
Anxiety	Within Groups	Time	102.867	2	51.433	30.583	0.001	0.522
		Time*Group	115.622	2	57.811	34.376	0.001	0.551
	Between Groups	Error	94.178	56	1.682			
		Group	344.178	1	344.178	78.250	0.001	0.736
		Error	123.156	28	4.398			
Depression	Within Groups	Time	72.089	2	36.044	8.479	0.001	0.232
		Time*Group	67.200	2	33.600	7.904	0.001	0.220
		Error	238.044	56	4.251			
	Between Groups	Group	22.500	1	22.500	2.341	0.137	0.077
		Error	269.156	28	9.613			
Stress	Within Groups	Time	15.756	2	7.878	4.012	0.024	0.125
		Time*Group	28.956	2	14.478	7.373	0.001	0.208
		Error	109.956	56	1.963			
	Between Groups	Group	31.211	1	31.211	3.134	0.038	0.101
		Error	278.844	28	9.959			

As Table 5 indicates, the effect of time ($p < 0.001$; $F = 30.583$; $\eta^2 = 0.52$), the interaction effect of time*group ($p < 0.001$; $F = 34.376$; $\eta^2 = 0.551$), and the group effect ($p < 0.001$; $F = 78.250$; $\eta^2 = 0.73$) are significant for anxiety. Conversely, the effect of time ($p < 0.001$; $F = 8.479$; $\eta^2 = 0.23$) and the interaction effect of time*group ($p < 0.001$; $F = 7.904$; $\eta^2 = 0.07$) are significant for depression, but the group effect ($p = 0.137$; $F = 2.341$; $\eta^2 = 0.077$) is not significant for depression. The effect of time ($p < 0.024$; $F = 4.012$; $\eta^2 = 0.125$), the interaction effect of time*group ($p < 0.001$; $F = 7.373$; $\eta^2 = 0.208$), and the group effect ($p < 0.038$; $F = 3.134$; $\eta^2 = 0.101$) are significant for stress. The mentioned differences were further examined through the Bonferroni test, and the results are presented in Table 6.

Table 6. Bonferroni Test Results for Comparing Psychological Distress (Anxiety, Depression, and Stress)

Variable	Time I	Time J	Mean Difference (I-J)	Standard Error	Sig
Anxiety	Pre-test	Post-test	2.567*	0.296	0.001
		Follow-up	1.733*	0.376	0.001
	Post-test	Pre-test	-2.567*	0.296	0.001
		Follow-up	-0.833	0.328	1
	Follow-up	Pre-test	-1.733*	0.376	0.001
		Post-test	0.833	0.328	1
Depression	Pre-test	Post-test	2.067*	0.505	0.001
		Follow-up	1.667*	0.627	0.038
	Post-test	Pre-test	-2.067*	0.505	0.001
		Follow-up	-0.400	0.450	1
	Follow-up	Pre-test	-1.667*	0.627	0.038
		Post-test	0.400	0.450	1
Stress	Pre-test	Post-test	1.833*	0.391	0.045
		Follow-up	-0.100	0.359	1
	Post-test	Pre-test	-1.833*	0.391	0.045
		Follow-up	-0.933	0.333	0.057
	Follow-up	Pre-test	0.100	0.359	1
		Post-test	0.933	0.333	0.057

According to Table 6, anxiety scores show a significant difference between the pre-test and post-test phases ($P<0.05$); in other words, the anxiety levels of patients with schizophrenia decreased after the intervention. Additionally, pre-test scores compared to the follow-up phase also show a significant difference ($P<0.05$); in other words, the narrative therapy intervention remained effective over a more extended period. However, there was no significant difference in anxiety scores between the post-test and follow-up phases. Another finding in Table 6 indicates that depression scores show a significant difference between the pre-test and post-test phases ($P<0.05$); in other words, the depression levels of patients with schizophrenia decreased after the intervention. Furthermore, pre-test scores compared to the follow-up phase also show a significant difference ($P<0.05$); in other words, the narrative therapy intervention remained effective over a more extended period. However, there was no significant difference in depression scores between the post-test and follow-up phases. On the other hand, according to Table 6, stress scores show a significant difference between the pre-test

and post-test phases (P<0.05); in other words, the stress levels of patients with schizophrenia significantly decreased after the intervention. However, there was no significant difference in pre-test scores compared to the follow-up phase (P>0.05).

A repeated measures ANOVA was conducted to examine the statistical significance of the observed changes in the mean functional disability. Before performing this test, its assumptions, including data normality and Mauchly's test of sphericity, were checked and found to be satisfied (Sig = 0.534; Chi-Square = 1.255; Mauchly's W = 0.955). The results of the repeated measures ANOVA for functional disability are reported in Table 7.

Table 7. Results of Repeated Measures ANOVA for Functional Disability

Source of Variation	Effect	Sum of Squares	DF	Mean Squares	F Value	Sig	Eta Squared
Time	Within Groups	822.482	2	411.241	20.264	0.001	0.420
Time * Group		22.084	2	11.042	3.526	0.036	0.112
Error		156.667	56	2.796			
Group	Between Groups	678.3986	1	678.3986	11.222	0.002	0.286
Error		111.9947	28	3.999			

As shown in Table 7, the effects of time (P<0.001; F=20.246; Eta=0.42), group (P<0.002; F=11.222; η^2=0.28), and the interaction effect of time*group (P<0.036; F=3.526; η^2=0.11) on functional disability are significant, indicating a significant difference between the two groups. This difference was further examined using the Bonferroni test, and the results are presented in Table 8.

Table 8. Bonferroni Test Results for Comparison of Functional Disability

Variable	Time I	Time J	Mean Difference (I-J)	Standard Error	Sig
Functional Disability	Pre-test	Post-test	5.633*	0.876	0.000
		Follow-up	3.400*	0.976	0.005
	Post-test	Pre-test	-5.633*	0.876	0.001
		Follow-up	-2.233*	0.814	0.031
	Follow-up	Pre-test	-3.400*	0.976	0.005
		Post-test	2.233*	0.814	0.031

According to Table 8, functional disability scores show a significant difference between the pre-test and post-test phases (P<0.05); in other words, the functional disability of patients with schizophrenia decreased after the intervention. Additionally, pre-test scores compared to the follow-up phase also show a significant difference (P<0.05); in other words, the narrative therapy intervention remained effective over a more extended period.

Discussion

The present study aimed to investigate the effectiveness of narrative therapy on resilience, functional disability, and psychological distress in patients with chronic schizophrenia. The first part of the findings indicated that ten sessions of group narrative therapy led to improvements in resilience among patients with chronic schizophrenia from the pre-test to post-test and follow-up phases. The results obtained from this study indirectly align with the research of Karibwende et al. (2022). The common point in the present study and the research of Karibwende et al. (2022) is the mechanism of the effectiveness of narrative therapy on resilience. According to the studies by (Sugawara & Mori, 2018), patients with chronic schizophrenia are often associated with stereotypes such as permanent illness and inability to recover, and they frequently perceive themselves as worthless and incapable. In such circumstances, narrative therapy, by focusing on the patient's values, strengths, and beliefs, offers a unique approach to treating schizophrenia and helps the patient discover an alternative narrative for their problems (Fernandez et al., 2023). Narrative therapy techniques, such as externalization, broadening cognition, and fostering flexibility, can help patients with schizophrenia move away from problematic perspectives and increase their resilience against pathological narratives (Llewellyn-Beardsley et al., 2019).

Referring to resilience theory, narrative therapy promotes resilience by helping schizophrenic patients rewrite their personal stories to highlight their strengths and values and, crucially, externalize their problems to reduce self-blame. This process fosters excellent adaptation, promoting positive self-attitudes and a sense of control. It also increases community support and helps patients identify and use internal and external resources, collectively enabling them to cope better with illness (Connor & Davidson, 2003).

Another finding of the study indicated that group narrative therapy sessions led to an improvement in psychological distress in patients with chronic schizophrenia from the pre-test to post-test phases. These results align with the research of Shakeri et al. (2020), Edwards et al. (2019), and Basharpoor et al. 2019). The common point between this study and Shakeri et al. (2020) is the effectiveness of cognitive-behavioral therapy approaches on anxiety and functional stress. Additionally, Edwards et al. (2019) demonstrated that third-wave therapeutic models play a role in reducing depression in patients with schizophrenia.

To explain this finding, it can be said that, in addition to problems such as hallucinations, delusions, disorganized speech, and psychomotor disturbances, schizophrenic patients experience many negative symptoms that

significantly impair their functioning (Mosolov & Yaltonskaya, 2021). Psychological distress is a significant negative symptom that exacerbates patients' problems by causing a lack of motivation and anhedonia (Upthegrove et al., 2017). With the chronicity of the disease and usual pharmacotherapy, a significant portion of positive symptoms generally improve, but negative symptoms persist (Correll & Schooler, 2020). In general, Narrative therapy reduces psychological distress in schizophrenic patients by reframing their experiences, externalizing symptoms to lessen personal identification (Llewellyn-Beardsley et al., 2019), promoting cognitive flexibility to alter thinking patterns (Sugawara & Mori, 2018), boosting self-esteem and empowerment (Ghavami et al., 2014), and providing supportive community interactions (Shakeri et al., 2020). These interventions help patients manage symptoms more effectively, improving overall mental well-being and reducing psychological distress.

Another finding of the study indicated that group narrative therapy sessions led to a reduction in functional disability in patients with chronic schizophrenia from the pre-test to the post-test phases. The results obtained from this research align with (Chae & Kim, 2015). The common point between this study and Chae and Kim (2015) is the improvement in functional disability and gaining narrative insight. In this regard, (Galderisi et al., 2021) believe that drug treatments are not suitable for reducing negative symptoms of schizophrenia, and psychotherapy is needed to alleviate these symptoms. Narrative therapy helps patients rediscover their abilities, improve their self-worth and empowerment, and focus less on negative emotional experiences (Naziri et al., 2011). Narrative therapy emphasizes positive emotions to help patients identify potential resources and opportunities; thus, through the teachings of narrative therapy, patients gain self-esteem and the ability to cope with depression and anxiety (Ghavami et al., 2014). Additionally, narrative therapy, by using techniques such as separating the patient's identity from the problematic event, reduces anxiety and stress and enhances the patient's control over life obstacles (Shakeri et al., 2020).

To explain this finding, it can be stated that despite sufficient drug treatment and remarkable progress in positive symptoms, disability is a significant outcome for patients (Sharma et al., 2020). Disability refers to any limitation or inability to perform an activity in a manner or within a range that is considered normal for a healthy individual, and this disability is due to the presence of a disorder (Barbotte et al., 2001). Chae and Kim (2015) demonstrated in their study that narrative therapy helps patients with schizophrenia separate their disabilities from their narratives and perceive them as something separate from themselves, something that can be reduced or eliminated. According to them, the function of narrative therapy in eliminating and reducing disability is achieved by framing problems differently. Additionally, according to Lopes et al. (2014), Narrative therapy enhances functional disability in patients with schizophrenia by promoting motivation, self-awareness, and communication skills, reducing negative symptoms, and fostering social support, thereby improving social and personal functioning.

Conclusion

The results showed that resilience, functional disability and psychological distress (anxiety, stress and depression) have a significant difference from the pre-test stage to the follow-up stage; therefore, it can be concluded that narrative therapy leads to improvement of resilience, functional disability and psychological distress of chronic schizophrenia patients.

The findings of this study are essential for several reasons. Firstly, it fosters narrative insight in patients. Narrative insight, especially in psychotic patients, entails giving meaning to the experienced disorder (Bouvet et al., 2019). According to Bouvet et al. (2019), narrative insight prompts patients to develop adaptive strategies regarding the illness and create a life story that aligns more with their current circumstances, perceptions, and values. Patients demonstrate greater resilience in such conditions by gaining insight and utilizing adaptive strategies.

The second significance lies in dispelling the notion of permanent disability in chronic schizophrenia patients. While severe disability exists in chronic schizophrenia patients (Cowan et al., 2021), the findings of this study indicate that narrative therapy helps patients cope with this disability and avoid a passive approach towards it.

The third importance of the findings of this research lies in tackling the negative symptoms of schizophrenia, such as depressive episodes, anhedonia, anxiety, functional stress, and apathy (Xie et al., 2023). Narrative therapy can act as a complementary treatment post-pharmacotherapy. While pharmacotherapy controls positive symptoms, narrative therapy influences negative symptoms.

This study faced several limitations that may impact the generalizability and robustness of the findings. The first limitation is the relatively small sample size, which may limit the generalizability of the results. To address this limitation, future studies should aim to increase the sample size. Utilizing larger samples can provide more robust data and enhance the reliability of the findings. Researchers could achieve this by collaborating with multiple clinical sites or extending the recruitment period.

The second limitation is the short follow-up period. The follow-up period in this study was limited, and longer follow-up periods are necessary to evaluate the sustained effects of narrative group therapy on resilience, functional disability, and psychological distress. Therefore, it is suggested that future research incorporate longer follow-up periods, including multiple assessments over several months or even years, to examine the long-term impact of the therapy.

The third limitation is the lack of a control group, which makes it difficult to definitively attribute the observed

improvements to the narrative group therapy alone. To strengthen the study design, future research should include a control group. Conducting randomized controlled trials (RCTs) that compare the therapy group with a control group receiving standard care or an alternative intervention would provide more definitive evidence of the therapy's effectiveness.

The fourth limitation is the reliance on self-report measures, which can be subject to biases such as social desirability and recall bias. To provide a more comprehensive evaluation of outcomes, future studies should incorporate objective measures or clinician assessments. This could include standardized clinical interviews, behavioral assessments, or physiological measures.

The fifth limitation is the homogeneity of participants. The study sample may lack diversity in terms of demographics such as age, gender, socioeconomic status, and cultural background. To enhance the generalizability of the findings, future research should aim to recruit more diverse samples. Including participants from various demographic groups will help ensure that the results are applicable to a broader population of individuals with chronic schizophrenia.

By addressing these limitations and implementing these suggestions, future research can build on the current study's findings and contribute to a more comprehensive understanding of the effectiveness of narrative group therapy in improving the lives of chronic schizophrenia patients.

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No potential conflicts of interest are reported by the authors.

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