



Impact of marbling art therapy activities on the anxiety levels of psychiatric patients

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Abstract

Purpose: Study was conducted to explore the impact of marbling art therapy on the anxiety levels of patients with schizophrenia and bipolar disorder.

Methods: Data for the study were at a university hospital and in the psychiatric service, polyclinic of a State Hospital with 34 patients diagnosed with schizophrenia and 34 patients diagnosed with bipolar disorder. Investigations were carried out with study groups and a control group.

Findings: Following marbling, it was found that there were significant decreases in the PANSS negative, in the positive, general psychopathology in terms of the scores of the group of schizophrenia patients and in the BAI scores of patients with bipolar disorder. There was no significant difference in the BAI scores of the control group.

Clinical relevance: The study showed that the method of marbling therapy led to improvements in the negative and positive symptoms of schizophrenic patients and in both patient groups, it contributed to decreasing levels of anxiety.

Keywords: Marbling; Art Therapy; Psychiatric Patients; Anxiety.

Introduction

Many previous studies have revealed that Bipolar Disorder-Anxiety disorder comorbidity is observed fairly often, and that a diagnosis of comorbid anxiety has an adverse effect on the severity of the disease and the process of Bipolar Disorder in patients. The most important results that have been obtained from these studies are that comorbidity between the two disease groups is fairly common and that the incidence of anxiety disorder is higher in Bipolar Disorder patients as compared to the general population. According to studies, the incidence of comorbidity of a diagnosis of lifelong anxiety disorder in Bipolar Disorder patients varies between 24% and 93%. Today, the failure to take adequate precautions concerning anxiety disorder comorbidity in Bipolar Disorder can cause treatment to be delayed and may also lead to a reaction and serious function loss. In order to prevent these problems and increase the life quality of patients, it is extremely important for anxiety disorders to be recognized during their early stages through the use of scanning tests if necessary, and for these conditions to be treated (Tamam, 2007).

Although epidemiological studies report a high prevalence of anxiety disorders in schizophrenia, their clinical relevance is still under-recognized (Pallanti, Qercioli, Hollander, 2004). In a sample randomly selected from the population in a study by Bland et al., one or more accompanying psychiatric disorders were determined in 85% of schizophrenia patients (Bland, Newman, Orn, 1987). The researchers point to an approximate rate of 60% for comorbid anxiety

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and mood disorders. Evaluating the presence of anxiety disorders in schizophrenia and treating these disorders may provide an important contribution toward developing a scheme for clinical and social termination of patient treatment (Braga, Mendlowicz, Marrocos, Figueira, 2005).

Art Therapy is a form of psychotherapy that has been practiced for over 60 years (Crawford et al., 2010). Art therapy has been designed around the belief that visual imagery has an integrating and therapeutic potential and in general, it is used as a tool for providing psychological insight and encouraging emotional maturity. Many art therapists agree that the creative process itself that is involved in the therapy has therapeutic power (Spaniol, 2001).

Art therapy and artistic endeavors are of great importance in encouraging psychiatric patients to express themselves and they provide an environment in which the patients may engage in activity and socialize (Mirowsky, 2007; Spandler et al., 2007).

This type of therapy has been promoted as a means of helping people who may find it difficult to express themselves verbally, to engage in psychological treatment. In Art Therapy, patients are provided with a choice of art materials and encouraged to use them to express themselves freely. It has been argued that Art Therapy has advantages over traditional psychotherapies because the images that a person creates can help self-understanding while at the same time contain powerful feelings that might otherwise be overwhelming to the patient (Killick, 1997). The key ingredients of Art Therapy are considered to be the process of producing art and the relationship that develops between the therapist and the participant (Edwards, 2004).

The art of marbling, a common form of art during the Seljuk and Ottoman eras, reached Europe at the beginning of the seventeenth century under the name of Turkish Paper Marbling. *Ebru* or marbling, which is described as the music of colors, has a soul-soothing harmony (Barutçugil, 2010).

Ebru firstly teaches one the skill of developing patience. Since an ebru artist is not always fully in control of the art, people with obsessions in particular learn to accept what exists. It is a fact that has been proven by experience that ebru has a therapeutic essence and contributes to improving aesthetic sensitivity, communication, using time correctly, motivation, creativity, patience, discipline, adaptation, yielding positive results when coping with problems such as stress, instability and anxiety (Aktay, 2014; Utaş, 2012).

Aim

This study was conducted to explore the impact of marbling art therapy on the anxiety levels of patients with schizophrenia and bipolar disorder.

Methods

Study Design

The study was of one group, pre- and post-test design to determine the effect of art therapy with marbling on the anxiety levels of patients with schizophrenia and bipolar disorder.

Ethical Approval

Permission for the research was obtained from the Ethics Committee of the Medical Faculty of Bülent Ecevit University prior to the study (Reg. No. 2012- 145-11/12). To ensure cooperation, the hospitals were informed about the goal of the research and the methods that would be used. After the goal and methods of the study were explained to the patients and the control group, the participants willing to be a part of the study were asked to sign an informed consent form. The study began to be implemented after both written and verbal consent was obtained.

Sample and setting

Data for the study were collected over the period February 2013-May 2014 at a university hospital in the city of Zonguldak, Turkey, and in the psychiatric service and polyclinic of a State Hospital in the same city with 34 patients diagnosed with schizophrenia and 34 patients diagnosed with bipolar disorder. Patients with serious physical or neurological disease, a pathological dependency on alcohol or a history of substance abuse, and those who had received electroconvulsive therapy (ECT) in the last 6 months were excluded from the study. The study worked with patients and the individuals in the control group. The patients to be taken into the study comprised 2 groups. The first group had been diagnosed with schizophrenia or bipolar disorder and comprised outpatients who were being followed up at the psychiatric polyclinic of the Zonguldak State Hospital, a hospital working under the Turkish Ministry of Health; the group comprised 17 schizophrenia and 17 bipolar patients. The second group comprised inpatients at a university hospital and at the mental health and disorders department of a State Hospital. These were consenting patients who were under active treatment; 17 of the patients had been diagnosed with schizophrenia, 17 with bipolar disorder. The individuals in the control group had received no psychiatric diagnosis and comprised 33 volunteers willing to participate in the research.

Procedure

At first, an expert in the field provided one nurse in the psychiatry department and one psychiatry nurse who would perform marbling art in the psychiatry clinic with training for one year. Before the first session of marbling, each group was given information about the art of ebru, the materials used in the art, how marbling was performed and other informative details about the research. The initial marbling procedure was completed within 1 hour. After this first session, the control group and the bipolar patient group were administered Beck's Anxiety Inventory as a pre-test and the schizophrenia patients were asked to complete the PANSS and Beck's Anxiety Inventory. The patients and those in the control group filled out the measurement tools on their own if they were able to answer, or with the assistance of the nurse at face-to-face interviews in situations where they could not fill out the forms on their own.

During the course of the 8 weeks following this introductory training, patients made ornaments with marbling in the presence of a nurse three days a week, 30 minutes per day (Bryant, Fieldhouse, Bannigan, 2014; Rahmani& Moheb, 2010, Burns, 2009). On the following days of the implementation, 10-minute unstructured interviews were held with the patients before the ebru session began, and they were asked about their daily activities, their emotional reactions and their thoughts (Rahmani& Moheb, 2010). At each session, to encourage the autonomy of the participants, they were left free to work with the marbling whichever way they wanted using the materials provided. At the end of the 8 weeks, the control group and the bipolar patient group were administered Beck's Anxiety Inventory as a post-test and the schizophrenia patients were asked to complete the PANSS and Beck's Anxiety Inventory.

Measures

A "Sociodemographic Questionnaire," the "Positive-Negative Syndrome Scale (PANSS)" and the "Beck Anxiety Inventory (BAI)" were used in the research. The application of the PANSS took 20 minutes. The application of the BAI and the sociodemographic questionnaire took approximately 5 minutes.

The sociodemographic questionnaire was prepared by the researchers making use of current literature, and consisted of 10 questions (Utaş, 2012; Malchiodi, 2007).

The Positive and Negative Syndrome Scale (PANSS) is used in measuring the distribution of positive and negative symptoms and their severity. The scale was developed by Kay et al. Comprising thirty-one items, each item is evaluated on a severity scale of 1-7. PANSS is a Likert-type scale. The scale's testing in Turkey for validity and reliability was performed by Kostakoğlu et al.

The Beck Anxiety Inventory (BAI): As a self-evaluating scale, the BAI is used to determine the level, symptom distribution, and intensity of anxiety. Scores range between 0-63.

Analysis

Data were entered into SPSS 18.00 for the Windows installer program (SPSS Inc., Chicago, IL, USA). The data from the scale were evaluated on the basis of means + standard deviation. The scale data from the pre- and post-tests were compared with the means obtained from the "Wilcoxon Paired Sample Test." Test results of $p < 0.05$ were considered to be statistically significant.

Results

Table 1 Demographic Features

Sociodemographic Characteristics	Schizophrenia patient group (n=34)		Bipolar patient group (n=34)		Control group (n=33)	
	n	%	n	%	n	%
Gender						
Women	17	50	17	50	16	48.5
Men	17	50	17	50	17	51.5
Civil status						
Married	28	82.4	20	58.8	27	81.8
Single	6	17.6	14	41.2	6	18.2
Age						
25-35	13	38.4	13	38.4	15	47.4
36-41	9	26.4	9	26.4	9	26.3
42-48	12	35.2	12	35.2	9	26.3
Educational Status						
Elementary School						
Middle School						
High School	12	35.3	10	29.4	10	30.3
University and above	6	17.6	7	20.6	7	21.2
	9	26.5	13	38.2	12	36.4
	7	20.6	4	11.8	4	12.1

Of the group of schizophrenia patients, 50% were men, 82.4% were married, 38.4% were in the age group 25-35, and 35.3% were primary school graduates. Of the group of bipolar patients, 50% were women, 58.8% were married, and 38.2% were high school graduates. In the control group, 48.5% were women, 51.5% men, 81.8% were married, 47.4% was of the ages 25-35, and 36.4% were high school graduates (Table 1).

Table 2. Comparison of PANSS and BAI Scores Before and After the Ebru Activity in the Schizophrenia Group of In- and Outpatients (n=34)

Name of the Scale	Pre-test mean score	Post-test mean score	p
PANSS Positive Scale	22.10±5.48	13.15±2.25	<0.001
PANSS Negative Scale	23.68±7.74	15.88±2.84	<0.001
PANSS General Psychopathology	33.7±9.1	21.56±1.38	<0.001
BAI	8.00±1.96	4.66±0.98	<0.05

Schizophrenia Group of In- and Outpatients when the PANSS scores of the in- and outpatients in the schizophrenia group on the pre-test and post-test were examined, it was found that the pre-test mean score for the PANSS positive symptoms was 22.10±5.48 while the mean

score on the post-test was 13.15 ± 2.25 . The Negative symptoms on PANSS displayed a pre-test mean score of 23.68 ± 7.74 while the mean for the post-test was 15.88 ± 2.84 . The mean score on the PANSS general psychopathology pre-test was 33.7 ± 9.1 while the post-test mean score was 21.56 ± 1.38 . The BAI pre-test mean score was 8.00 ± 1.96 ; the post-test mean score was 4.66 ± 0.98 (Table 2).

A comparison of the pre- and post-tests on the scales that were applied to the schizophrenia patient group showed significant decreases in negative symptoms on PANSS (<0.001), in positive symptoms (<0.001) on PANSS, in PANSS general psychopathology scores (<0.001), and in the BAI scores ($p < 0.05$) after the implementation, as compared to the pre-tests (Table 2).

Table 3. Comparison of BAI Scores Before and After the Ebru Activity in the Bipolar Group of In- and Outpatients (n=34)

Name of the Scale	Pre-test mean score	Post-test mean score	p
BAI	7.00 ± 1.92	4.66 ± 0.74	<0.05

Comparing the pre- and post-test BAI scores of the In- and Outpatient Bipolar Group before and after the Marbling Activity revealed BAI a pre-test mean scores of 7.00 ± 1.92 and a post-test mean score of 4.66 ± 0.74 . A comparison of the pre- and post-test BAI scores of the bipolar patient group revealed a significant fall in scores after the activity ($p < 0.05$) (Table 3).

Table 4 Comparison of BAI Scores Before and After the Ebru Activity in the Control Group
A comparison of the BAI Scores of the Control Group Before and After the Marbling Activity

Table 4. Comparison of BAI Scores Before and After the Ebru Activity in the Control Group (n=33)

Name of the Scale	Pre-test mean score	Post-test mean score	mean	p
BAI	9.98 ± 10.2	8.34 ± 9.9	7.35	0.120

Revealed that the mean score on the BAI pre-test was 9.98 ± 10.2 while it was 8.34 ± 9.9 on the post-test. Although anxiety scores fell slightly on the post-test, the difference between the pre-test and post-test scores was not found to be statistically significant ($p > 0.05$) (Table 4).

Discussion

This study, which made use of the art therapy technique of marbling applied to patients with schizophrenia and bipolar disorder, revealed that both in- and outpatients being treated for bipolar disorder displayed a fall in their anxiety level after the marbling activity, that schizophrenia patients experienced both a fall in their anxiety scores and a positive change in their social skills.

Individuals with schizophrenia commonly experience a loss of capacity in many aspects of private and social life, becoming distanced from opportunities to be productive (Ensari et al., 2013; Yank, 2007). It has been found that schizophrenia patients may be helped to improve their capacity for psychological and social initiative as well as the severity of their symptoms and to increase their functionality if, in addition to treatment with medications, they are provided with an opportunity to engage in psychological education, family education, social skills training, cognitive behavior therapies, and activities in art, music, handicrafts and other hobbies (Ensari et al., 2013; Schooler, 2006, Yıldız et al., 2004).

The characteristic of marbling that makes every work of art a unique composition that is similar to no other and the relative speed with which the occupation can reach completion

separates the art of ebru from other art forms such as painting or sculpture (Gür, 2012). Art symbolically stimulates many aspects of an individual's emotions, providing deeper insight into the self. In this way, instead of looking into the content of the consciousness, the individual is helped to turn the emotions into concrete expression through the use of paper, music, dancing or some other activity (Blatnet, 1997). This study received positive feedback from patients, who were happy with the features of marbling that enabled them to be able to produce more than one piece of art in a single session and see the results of their work immediately. All of this may be mentioned as the positive aspects of the activity. It may be said that the art of marbling has a facilitating effect on allowing the patient to express him/herself, increase his/her productivity and adapt to both the activity and to the process of treatment.

Patients with schizophrenia and comorbid symptoms of anxiety or anxiety disorders commonly experience a deterioration in their quality of life, spurred on by suicide attempts or suicidal thoughts, and depressive symptoms, all of which are more frequently seen over the course of the disease. The results of the study emphasize the importance of comorbidity in patients with schizophrenia who suffer from symptoms of anxiety or anxiety disorders over the course of their clinical care and treatment, casting new light on the search for different treatment approaches (Beleno et al., 2010). While most studies have shown that schizophrenic patients with comorbid anxiety disorder exhibit high positive and negative symptom scores, other studies have not been able to find a significant correlation between positive and negative symptoms and comorbidity with anxiety disorders (Braga, 2004; Huppert & Smith 2005). Art therapy and creative processes allow individuals to express themselves and promote self-awareness. For this reason, it may be said that these methods are effective in remedying both negative and positive symptoms. (Patterson, 2007). This study found the positive and negative symptoms on the PANSS and the anxiety scale scores to be high before the ebru activity. After the activity, it was seen that the art of marbling had been effective in eliminating both positive and negative scale symptoms. In a study about art therapy conducted by Sarandöl et al. (2013), it was found that art activities were particularly effective in eliminating negative symptoms rather than positive symptoms (Sarandöl et al., 2013). The present study revealed different results.

Comorbid anxiety disorders in bipolar patients have been seen to cause an increase in general psychopathology, reduce response to treatment, adversely affect the course of the illness and give rise to increased suicidal risk (Tamam, 2007). In this study, the marbling art therapy applied to bipolar patients was seen to yield a drop in anxiety scores, which were observed to be high before the activity.

The positive changes observed in this study may be associated not only with the use of marbling art but also with the fact that patients were receiving regular therapy and were reporting for their polyclinic check-ups. It is for this reason that we believe that the method of art therapy with marbling should be used in larger patient groups and with patients with different clinical diagnoses, enabling a means for making comparisons between patient groups. This will provide a basis for an accumulation of more knowledge and experience about the advantages or limitations of marbling art activities.

A scan of the literature shows that there are few studies that have treated the subject of using art therapy with psychiatric patients. The present study is the first to use the art of ebru, or marbling, as a form of art therapy with psychiatric patients. The study revealed an improvement in social functionality scores on the PANSS negative scale after ebru art therapy, which is consistent with other research in the field (Sarandöl et al., 2013).

Limitations of the study

The findings of the study are limited to the province of Zonguldak in Turkey and therefore, its failure to reflect the situation in other countries/cultures constitutes the limitation of this study. Another limitation is the small number patients in the study.

Conclusion

Following marbling art therapy, it was found that there were significant decreases in the PANSS negative scale, in the PANSS positive scale and in the PANSS general psychopathology scale in terms of the scores of the group of schizophrenia patients and in the BAI scores of patients with bipolar disorder. There was no significant difference in the BAI scores of the control group

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Key Practice Points

- It was detected that art therapy with marbling had a positive effect on anxiety levels of patients. It may therefore be effective in healthcare outcomes of nurses in psychiatry departments if the nurses are trained in the practice of art therapy with ebru.
- The results obtained from the study underscore the importance of the art of marbling, a form of art therapy, in guiding individuals into producing rather than consuming, and suggests that this activity could be put to good use in hospital environments, rehabilitation centers, and in the activities of associations and societies that are supported by funds provided by the municipalities and government authorities.

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