Effect Of Art Therapy On Negative Symptoms Of Schizophrenic Patients Admitted In Selected Hospitals Of Bhubaneswar.

Anwesha Ghara[1*], Dr. Sivasankari V[2], Mrs. Sanjukta Dixit[3], Mrs. Reena Singh[4]

Abstract

Background: One form of supplementary psychotherapy is art therapy. Individuals can communicate differently with themselves, others, and their world via the use of art therapy.It is believed that negative symptoms of schizophrenia can be improved with art therapy. Through the expression and purification of their emotions, patients participating in art therapy may help them develop good self-images.

Aim: The study's aim includes determining the level of negative symptoms among schizophrenia patients, assessing the impact of art therapy on those symptoms, and identifying the relationship between those symptoms and demographic factors.

Methods: This study was an interventional study carried out in the psychiatric inpatient department of selected hospitals of Bhubaneswar. 34 patients with negative symptoms of schizophrenia are chosen, with 17 being in the interventional group and 17 being in the control group. PANSS and the Self-Structured Demographic Proforma are the instruments utilised for data collection. Mean, standard deviation and frequency distribution are used in descriptive statistical analysis. Paired and unpaired t-tests and chi-square calculations are used inferential statistical analysis.

Results: The study findings illustrated that reduction in negative symptoms with (t=9.6) (p=0.000) which is highly significant at the p<0.05, furthermore symptom reduction had association with one variable of socio-demographic proforma that is religion (p=0.02) and others were not associated.

Conclusion: Negative symptoms of schizophrenia are significantly reduced by art therapy. Duration of the therapy should be increases for more effectiveness.

Key words: art therapy, negative symptoms, schizophrenia

INTRODUCTION

According to WHO "In the world, 24 million individuals, or 1 in 300 people (0.32%), have schizophrenia. At this rate, 1 in 222 people are adults, or 0.45% of the population. Compared to many other mental conditions, it does not happen as commonly. Early twenties and late teens are the most frequent dates for beginning, and onset frequently happens sooner in men than in women". Schizophrenia is frequently associated with substantial suffering and intellectual, professional, and other important elements of life.[1]

The negative symptoms of schizophrenia typically begin to appear years before a person experiences their first severe schizophrenic episode. These initial unpleasant symptoms of schizophrenia are sometimes referred to as the prodromal period. The symptoms of the prodromal phase frequently start off mildly and get worse with time. They include the person's

*Corresponding Author: -Anwesha Ghara
Address: [1*]M. Sc Nursing 2nd year, Department of Mental Health Nursing KINS, KIIT-DU, Bhubaneswar.
[2]Associate Professor cum HOD, Department of Mental Health Nursing, KINS, KIIT-DU, Bhubaneswar.
[3]Assistant Professor, Department of Mental Health Nursing, KINS, KIIT-DU, Bhubaneswar.
[4]Assistant Professor, Department of Mental Health Nursing, KINS, KIIT-DU, Bhubaneswar.

cleanliness. Determining whether a particular collection of symptoms is brought on by schizophrenia or another condition can be difficult.[2]

Schizophrenia's negative symptoms include: a decline in interest and enthusiasm in relationships and sex as well as other activities; a lack of concentration; a desire to stay home; changes in sleeping patterns; a decreased propensity to start conversations; and a sense of unease or lack of things to say when around others. The negative symptoms of schizophrenia can lead to problems in relationships with friends and family because they can oftentimes be mistaken for deliberate disinterest or disrespect.[10] [11]

The application of creative methods in the therapy of psychological disorders and the enhancement of mental health is known as art therapy. Art therapy is a technique built on the premise that fostering artistic expression may aid in healing and mental health. People have been using the arts to connect, express oneself, and find healing for centuries. However, art therapy didn't begin to be included in formal curricula until the 1940s. After seeing that individuals suffering from mental illness commonly expressed oneself in paintings and other arts, many clinicians started to look into the use of artwork as a treatment modality. Since that time, art has developed into a substantial part of healthcare approach and is now incorporated into several diagnostic and therapy techniques.[3]

People who suffer from severe mental disorders like schizophrenia may use the creation of art as a way to express themselves or as a way to recount an event or an experience that they have previously felt uncomfortable expressing.Art therapy may be used to adequately manage negative symptoms including lack of motivation, social withdrawal, communication gaps, and poor non-verbal abilities. It could be an extra treatment that, when given together with medication, will help the patient recover and teach them how to control their disease.[4]

METHODOLOGY

The present study is a quantitative intervenetional study done in the impatient psychiatric department of selected hospitals of Bhubaneswar. The study design is quasi experimental-non randomized control group design. Convenient sampling techniques were employed to choose the sample. Schizophrenic patients who met the inclusion criteria and had negative symptoms were chosen as the sample. The four-week data collecting period was used which included pre-intervention assessment, intervention period and post-intervention assessment after 7days by completion of intervention period. the following criteria were required for inclusion: diagnosed with negative symptoms of schizophrenia, were given permi-ssion to participate by a psychiatrist, could read, write and were granted clearance from the primary caregiver. Exclusion criteria include individuals who are aggressive and those who will get additional psychotherapy for negative symptoms. Ethical clearance was taken from the institutional ethical committee (KIIT/KIMS/IEC/892/2022) before conducting the study. Total number of subjects were 34, from which 17 subjects were selected from KIMS hospital Bhubaneswar for interventional group and other 17 subjects were selected from HI-Tech hospital for control group. Subjects and their primary care giver were explained clearly about the nature of the study and data collection procedure and consent for data collection were also taken from the primary care giver of the subjects. A self-structured demographic pro forma was devised to measures the socio-demographic variables such as age, gender, education, occupation, marital status, religion, family monthly income, age when schizophrenia diagnosed, duration of illness and frequency of hospitalization and Positive and Negative Syndrome Scale(PANSS) was used to measures the degree of negative symptoms of schizophrenia. The scales were translated in the dialectal languages (Odiya) and translated versions were used. The scales were administered by a single rater.[9]

Instruments
Section A: Self-structured demographic Pro forma:
The investigator constructed this tool to collect information or data regarding socio-demographic characteristics of the schizop-hrenic patients with negative symptoms. It is a self-

structured questionnaire comprising of 10 items intended to assess age, gender, education, occupation, marital status, religion, family mon-thly income, age when schizophrenia diagnosed, duration of illness and frequency of hospital-lization.

Section B: Positive and Negative Syndrome Scale (PANSS):

In the realm of mental health, the Positive and Negative Syndrome Scale (PANSS) is a rating tool used to assess the intensity of positive and negative symptoms in individuals with schizophrenia. Abraham Fiszbein, Lewis Opler, and Stanley Kay published it in 1987. The scale consists of 30 items divided into three categories: general psychopathology, negative symptoms, and positive symptoms. Blunted affect, emotional withdrawal, poor rapport, passive/apathetic social withdrawal, difficulty with abstract thought, lack of spontaneity & flow of conversation, and stereotypical thinking are some of the negative symptoms included in this study's domain of negative symptoms that includes 7 items to measure the severity of symptoms.[5][6]

STATISTICAL ANALYSIS

The Positive and Negative Syndrome Scale (PANSS) was utilised to conduct the statistical analysis, which was done using SPSS 22.0. For continuous variables, the data were reported as the mean and standard deviation; for categorical variables, they were expressed as frequencies and percentages. To compare the associations between the negative symptoms of schizophrenia patients and the chosen demographic factors, paired and unpaired t-tests and chi square were used.

RESULTS

A total of 34 subjects consisting of 17 in intervention group and 17 in control group who satisfied the inclusion and exclusion criteria were considered for the analysis. Frequency and percentage distribution was done to assess the demographic variables (refer to table-1) and degree of negative symptoms (refer to figure 1 and 2). Paired t-test (refer to table-2 and table-3) was done to evaluate the effect of art therapy on negative symptoms and Chi-Square was done for finding the association between negative symptoms with selected demographic variables.

Table – 1(n = 17)

S. No.	Socio-demographic variables		Control group		Interventional group	
			frequency	percentage	Frequency	Percentage
1	Age (Years)	25-35	5	29.4	9	52.9
		36-45	9	52.9	7	41.2
		46-55	3	17.6	1	5.9
2	Gender	Male	1	5.9	10	58.8
		Female	16	94.1	7	41.2
		Others	0	0	0	0
3	Education	Primary education	4	23.5	5	29.4
		Secondary education	9	52.9	10	58.8
		Senior secondary education	2	11.8	2	11.8
		Graduation and above	2	11.8	0	0
		No formal education	0	0	0	0
4	Occupation	Unemployed	4	23.5	5	29.4
		Government employee	9	52.9	10	58.8
		Private sector Employee	2	11.8	2	11.8
		Self employed	2	11.8	0	0
5	Marital Status	Married	8	47.0	7	41.2
		Unmarried	6	35.3	10	58.8
		Divorced	3	17.6	0	0
		Separated	0	0	0	0
6	Religion	Hinduism	13	76.5	12	70.6
		Muslim	0	0	5	29.4
		Christian	2	11.8	0	0
		Others	2	11.8	0	0
7	Family Monthly Income (Rs)	<15,000	5	29.4	2	11.8
		15,000-25,000	7	41.2	12	70.6
		26,000-35,000	3	17.6	3	17.6
		36,000 and above	2	11.8	0	0
8	Age at Schizophrenia Occurred	<20 years of age	3	17.6	1	5.9
		(21-30) years of age	11	64.7	11	64.7
		(31-40) years of age	1	5.9	5	29.4
		40years and above	2	11.8	0	0
9	Duration of Illness	<5years	11	64.7	12	70.6

Anwesha Ghara, Dr. Sivasankari V, Mrs. Sanjukta Dixit, Mrs. Reena Singh, Effect Of Art Therapy On Negative Symptoms Of Schizophrenic Patients Admitted In Selected Hospitals Of Bhubaneswar.

		(5-10) years	3	17.6	5	29.4
		> 10 years	3	17.6	0	0
10	Frequency of hospitalization	Once	4	23.5	0	0
		2-3 times	6	35.3	8	47.0
		4-5 times	5	29.4	8	47.0
		6 and above	2	11.8	1	5.9

Table 1 represents the frequency and percentage distribution of socio-demographic variables of both control and intervention group.
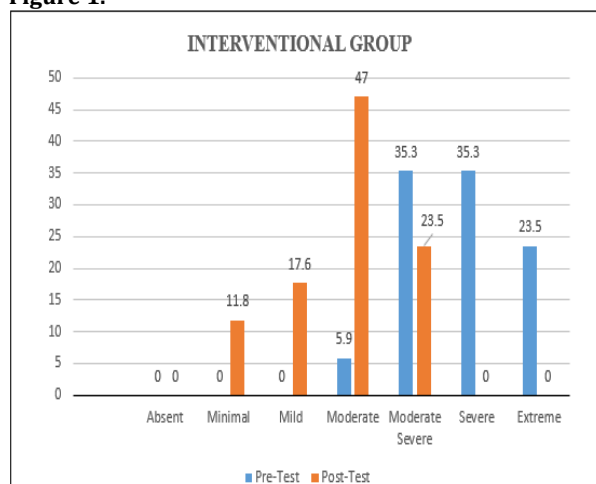
Figure 1.

Figure 1 Represents the percentage distribution of participants according to the degree of nega-tive symptoms in pre-intervention and post-intervention assessment among inter-vention group.
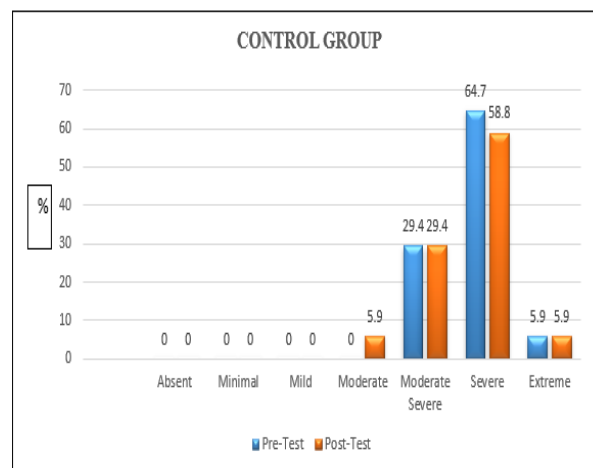

Figure 2 Represents the percentage distribution of participants according to the degree of nega-tive symptoms in pre-intervention and post-intervention assessment among control group.

Figure 2.

Table-2.(n = 17)

Intervention Group	Mean	Mean Difference	Standard Deviation	Paired 't' test	'P' Value
Pre-intervention	36.18	11.65	5.908	9.605	0.000***
post-intervention	24.53		6.597	(df = 16)	Significant

Level of significance at p-value<0.05

Table – 2 compares the Mean, Mean Difference, Standard Deviation and Paired 't' test value of participants between pre-intervention and post-intervention assessment in Interventional Group.

Table – 3(n = 17)

Control Group	Mean	Mean Difference	Standard Deviation	Paired 't' test	'P' Value
Pre-intervention	37.59	0.3	4.664	1.429	0.172
Post-intervention	37.29		4.858	(df = 16)	Not Significant

Level of significance at p-value<0.05

Table – 3 compares the Mean, Mean Difference, Standard Deviation and Paired 't' test value of participants between pre-intervention and post-interventionassessment in Control Group.

DISCUSSION

This study supported the impact of art therapy on negative symptoms of schizophrenia. According to the study's findings, art therapy helped schizophrenic patients in easing their negative symptoms generally.
The majority of participants were aged between 25 and 35 years, with 9 (52.9%) in the intervention group and 9 (52.9%) in the

1115

control group. Maximum participants by gender were in the male group, which included 10 (58.8%) in the intervention group and 16 (94.1%) in the female group for the Control group. In the intervention group, 10 (58.8%) individuals had completed elementary school, whereas 9 (52.9% in the control group) had finished high school. According to occupation, the large percentage of participants—10 (5.8%) in the intervention group and 9 (52.9% in the control group—were workers in the government. The majority of participants in the intervention group, 10, were single (58.8%), compared to 8 (47.0%) in the control group. Optimum participants were 12 (70.6%) Hindus in the intervention group and 13 (76.5%) Hindus in the control group. Highest participants in the intervention group, 12 (70.6%), had a monthly household income of between Rs. 15,000 and 25,000, compared to 7 (41.2%) in the control group. Maximum participants were 11 (64.7%), or between the ages of 21 and 30, in the intervention group and 11 (64.7%), or between the ages of 21 and 30, in the control group. Maximum participants 12 (70.6%) in the intervention group and 11 (64.7% in the control group) were each in less than 5 years of sickness duration.

In intervention group, equal number of participants 6 (35.3%) were there with moder-ately severe symptoms and severe symptoms in pre-intervention assessment. And in pre-intervention assessment maximum participants 8 (47.0%) were with moderate symptoms. In control group, maximum number of participants 11 (64.7%) were there with severe symptoms in pre-intervention assessment. And in pre-intervention assessment maximum participants 10 (58.8%) were with severe symptoms. Another review study conducted to determine the prevalence of the degree of negative symptoms found that, in an analysis of 20 placebo-controlled studies of 2nd genera-tion antipsychotics (n=7450), 62% of patient populations met the criteria for notable negative symptoms. This study's findings are supported by this review study's findings (score of at least moderate or moderately severe on multiple PANSS negative symptoms).[7]
The mean and standard deviation scores of

negative symptoms during pre-intervention were 36.18 + 5.908 for the intervention group and 37.59 + 4.664 for the control group, respectively. The mean and standard deviation ratings of negative symptoms during pre-intervention assessment were 24.53 + 6.597, respectively, after 15 days of intervention were provided to the intervention group. Additio-nally, in the control group, before any intervention was given, the mean and standard deviation were 37.29 + 4.858, respectively. To assess how art therapy affected negative symptoms of schizophrenia in schizophrenic patients, mean pain scores from before and after the session were compared.It was observed that the mean pre-intervention assessment score was 36.18±5.908 and the mean post-intervention assessment score was 24.53±6.597. The post-intervention assessment was performed after seven days of intervention. Paired t-Test statistics were calculated for the entire intervention group. The mean difference between the pre-intervention and pre-intervention assessment was 11.65. The t score was 9.605 and the degree of freedom was 16. The pre-intervention and post-intervention[5] assessment's mean scores for the entire population has been calculated and a statistically significant difference was seen in between the two scores (p=0.000) for the 0.05 level of significance.The results of a separate study by Jung Ming Cho and Kyunghee Lee on the effects of motivation interviews with a group art therapy programme on negative symptoms of schizophrenia corroborate the findings of the present study. The mean pre-intervention score, according to the study, was 83.35±25.30, and the mean post-intervention score was 57.76±24.38. According to the ANOVA test, there is a statistically significant difference between the pre-intervention and pre-intervention scores for negative symptoms (p=0.009).[8]
In intervention group, socio-demographic variables consisting age (p=0.336), gender (P= 0.530), education (p= 0.105), occupation (p=0.549), marital status (p=0.530), monthly family income (p= 0.420), religion (p=0.245), age at schizophrenia occurred (p= 0.213), duration of illness (p=0.542) and frequency of hospitalization (p=0.313) showed non-

1116

significant association with pre-intervention negative symptoms scores.

LIMITATION
➢ Some patients were particularly difficult to motivate to engage in art therapy.
➢ Patients got easily distracted.

DELIMITATION
➢ Randomization was not done. So the sample may not be true representation of the population.
➢ The sample size for the study is small, so generalization of findings were limited.
➢ The study was conducted only in 2 hospital of Bhubaneswar.

RECOMMENDATION
➢ The same study can be done on larger samples for wider generalization.
➢ The effect of art therapy can be assessed on other mental illness.
➢ Comparative study can be done between the effect art therapy and other adjunctive therapy on negative symptoms of schizo-phrenia.

CONCLUSION
The main conclusion drawn from this present study was that, after giving art therapy, it was found that there was significant level of improvement in degree of negative symptoms of schizophrenia among schizophrenic patients. Therefore, art therapy is effective for reducing negative symptoms of schizophrenia.

REFERENCE:
Schizophrenia [Internet]. Who.int. [cited 2022 Oct 14]. Available from: https://www.who.int/news-room/fact-sheets/detail/schizophrenia

Symptoms - schizophrenia [Internet]. nhs.uk. [cited 2022 Oct14]. Available from: https://www.nhs.uk/mental-health/conditions/schizophrenia/symptoms/

Cherry K. How art therapy works [Internet]. Verywell Mind. 2009 [cited 2022 Oct 14]. Available from: https://www.verywellmind.com/what-is-art-therapy-2795755

White Swan Foundation. Role of art therapy in treating schizophrenia [Internet]. White Swan Foundation. 2015 [cited 2022 Oct 14]. Available from: https://www.whiteswanfoundation.org/mental-health-matters/understanding-mental-health/role-of-art-therapy-in-schizophrenia

Positive and negative syndrome scale (panss) rating criteria general rating instructions [Internet].

Sandiego.edu. [cited 2022 Oct 14]. Available from: https://www.sandiego.edu/teamup/documents/DRL-PANSS.pdf

Kay SR, Fiszbein A, Opler LA. The positive and negative syndrome scale (PANSS) for schizophrenia. Schizophr Bull [Internet]. 1987 [cited 2022 Oct 14];13(2):261–76.Available from: https:// pubmed.ncbi.nlm.nih.gov/3616518/

Cho JM, Lee K. Effects of motivation interviewing using a group art therapy program on negative symptoms of schizophrenia. Arch PsychiatrNurs [Internet]. 2018 [cited 2022 Oct 20];32(6):878–84. Available from: https://pubmed.ncbi.nlm.nih.gov/30454632/

Correll CU, Schooler NR. Negative symptoms in schizophrenia: A review and clinical guide for recognition, assessment, and treatment. Neuropsychiatr Dis Treat [Internet]. 2020 [cited 2022 Nov 15];16:519–34. Available from: http://dx.doi.org/10.2147/NDT.S225643

Art therapy for mental health recovery [Internet]. Gov.au. [cited 2022 Nov 7]. Available from: https:// www.healthywa.wa.gov.au/Articles/A_E/Art-therapy-for-mental-health-recovery

Mitra S, Mahintamani T, Kavoor AR, Nizamie SH. Negative symptoms in schizophrenia. Ind Psychiatry J [Internet]. 2016 [cited 2022 Nov 7];25(2):135–44. Available from: http://dx.doi.org/10.4103/ipj.ipj_30_15

Wójciak P, Domowicz K, Andrzejewska M, Rybakowski JK. Negative symptoms in schizophrenia, assessed by the brief negative symptom scale, self-evaluation of negative symptom scale, and social cognition: a gender effect. Int J Psychiatry ClinPract [Internet]. 2020 [cited 2022 Oct 19];25(3):252–7. Available from: https://pubmed.ncbi.nlm.nih.gov/32862741/

6