The Effectiveness of Group Activity Therapy Program to Enhance Negative Symptoms among Patients with Schizophrenia

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Abstract

Negative symptoms of schizophrenia have a severe impact on functional outcomes and current treatment options are limited and group activity therapy was identified as the most common type of therapy with justified claims to reduce negative symptoms. **Aim:** The aim of the present study was to determine the effect of group activity therapy program to enhance negative symptoms among patients with schizophrenia. **Design:** A quasi experimental design was used to achieve the aim of the study. **Setting:** This study was conducted at the Psychiatric Mental Health Hospital in Benha City, Qalubia Governorate, which is affiliated to General Secretariat of Mental Health in Egypt. **Subject:** A convenience sample of 66 schizophrenic patients was included from the above setting for the conduction of this study. This sample was divided into two matched groups into study group and control group. **Tools:** Two tools were used. Tool ¹ - structured interview questionnaire that was used to collect data about socio demographic and clinical characteristics of the studied subjects. Tool ²- Scale for the Assessment of Negative Symptoms (SANS) was used to measure negative symptoms among the studied sample. **Result:** the study revealed that after ¹³ sessions of group activity therapy, study group patients had significant improvement in their negative symptom scores (SANS total score, affective flattening or blunting, alogia, avolition – apathy, anhedonia – asociality, and attention) than before activity therapy program implementation. **Conclusions:** The study demonstrates that group activity therapy is highly effective in enhancement of negative symptoms among patients with schizophrenia. Results strongly suggest that group activity therapy should be embedded in the daily clinical routine. **Recommendations:** Group activity therapy should be a part of the patient’s usual care in all psychiatric and mental health hospitals.

Key words: Schizophrenia, negative symptoms, group activity therapy.
**Introduction**

Schizophrenia is a severe mental disorder, characterized by profound disruptions in thinking, affecting language, perception, and the sense of self. It often includes psychotic experiences, such as hearing voices or delusions. It can impair functioning through the loss of an acquired capability to earn a livelihood, or the disruption of studies. Schizophrenia affects more than 21 million people worldwide. Fifty percent of people in psychiatric hospitals around the world have schizophrenia. In Egypt, schizophrenia is considered the most common chronic psychosis and accounts for the majority of inpatients in our mental hospitals. Prevalence of schizophrenia in Egypt is estimated to be about 2% of population, which is equivalent to 0.56 million Egyptians (WHO, 9102 & (Barakat, 9102).

Schizophrenic patients suffer from a number of symptoms which can be either positive symptoms or negative symptoms. Positive symptoms are those symptoms that tend to reflect an excess or distortion of normal functions like hallucinations, delusions, disorganized speech or behavior. Negative symptoms reflect a lessening or loss of normal functions. However schizophrenia is a treatable disorder and there’s a high development in antipsychotic treatment, in fact, traditional therapies which based mainly on psychotropic medication administration have the strength to control psychiatric symptoms, but do not offer the necessary conditions to maintain long term control of negative symptoms, social dysfunction and behavioral problems. Therefore, untraditional treatments such as group activity therapy can be considered an important activity in mental health care (Boyd, 9102).

Negative symptoms of schizophrenia have previously been neglected as targets for treatment, despite carrying poorer long-term outcomes than positive symptoms such as hallucinations and delusions. Negative symptoms, which include apathy, anhedonia, alogia, avolition, affective flattening, asociality or inattention have a severe impact on functional and recovery outcomes and current treatment options are limited. Group activity creative therapies such as occupational therapy, art therapy, physical exercise, self-care training and recreational therapy were identified as the most common type of therapy with justified claims to reduce
negative symptoms. Thus, group activities which include recreation can be considered an important activity in mental health care (Priebe, et al., 2010).

Negative symptoms lead to absence of feelings (blunted affect), as well as the absence of desire and pleasure from activities, and a complete loss of volitional impulse. This result in an indifference to the external world and the patients are even indifferent to themselves, including their physical health, which results in decreased pain sensation and poor hygiene and make them less able to work or participate in leisure activities and everyday activities such as washing and cooking or, in extreme cases, may be unable to feed themselves. In addition to this, people with schizophrenia may have social problems such as difficulty in making and keeping friends. In extreme cases, the person may actively avoid all social interactions. For these reasons it is important to target inactivity early in treatment. Therefore, group activity therapy should be a part of treatment (Azorin, et al., 2010) & (Compton & Newcomer, 2010).

Activity therapy is a healing technique that is often employed with people overcoming emotional problems. The main focus of the therapy is to engage the individual in creative endeavors that help the patient think in a positive manner and express their positive and negative feelings in a positive way. This therapy may take place between a therapist and a single patient or be utilized in a group environment. As the therapy progresses, the patient has the chance to reconnect with the body and mind in ways that may have been obscured as a result of the health issues. Therefore using of group activity therapy as a part of an ongoing treatment process, can help enhance the effectiveness of any other tools utilized by the health care professional and it can help in reducing negative symptoms of schizophrenia (Tatum, 2010).

Group activity therapy provides benefits that may help schizophrenic patient begin to reactivate a dormant desire to be social. By bonding with others who are also attempting to overcome their disease effects especially negative symptoms, the patient is reminded he or she is not alone. As they support one another in learning how to brush their teeth, wash their hair, exercise, solving a puzzle, draw a picture or to create interesting works of art and crafts, the positive reinforcement
serves as additional incentive to keep trying on days when things seem especially bleak (Tatum, 1944).

Activity therapies are important recreational and creative techniques used to facilitate personal experiences and increase social responses and self-esteem. Large psychiatric hospitals especially those with long term health care units, have activity therapies. Many activity therapies such as creative art therapies are organized and conducted in groups. Nursing is a health area directed at the prevention and relief of human suffering. Nurses may lead such groups. Therefore, nurses must recognize that activities should be taking place throughout the daily shift hours (Kneisl & Trigoboff, 1976).

Nurses have to play an important role in implementing group activity therapies with patients, as many benefits can be experienced in creativity group led by psychiatric nurse. There are many benefits from engaging in creative group activities reduce patient's concerns and provides a distraction from negative thoughts which can lead to great improvement in the patient's condition. Additionally, creative group activities generate a positive experience of working together with others, one that provides a setting for social interaction and for developing social relationships, reduces pressures, raises morale and promotes recovery. All of this leads to expression of both positive and negative feelings, group acceptance and acceptance of self in a non-competitive creative group, which in turn lead to improvement of negative symptoms of schizophrenic patients (Drori, et al., 1993).

**Significance of the problem:**

Schizophrenia affects more than 21 million people worldwide. Fifty percent of people in psychiatric hospitals around the world have schizophrenia. In Egypt, schizophrenia is considered the most common chronic psychosis and accounts for the majority of inpatients in our mental hospitals. Prevalence of schizophrenia in Egypt is estimated to be about 2% of population, which is equivalent to 0.56 thousand Egyptians (WHO, 1994 & Barakat, 1994).
Patients with schizophrenia suffer from a number of symptoms which can be either positive symptoms or negative symptoms. Negative symptoms of schizophrenia have a severe impact on functional outcomes and current treatment options are limited. Group activity creative therapies such as occupational therapy, art therapy, physical exercise, self-care training and recreational therapy were identified as the most common type of therapy with justified claims to reduce negative symptoms. Thus, group activities which include recreation can be considered an important activity in mental health care (Pribe, et al., 2010).

The researcher's interest to conduct this study is based on the reality that group activity therapy is limited in Benha mental health hospital. Moreover the previous studies which studied the effect of group activity therapy of negative symptoms are limited. Therefore, the aim of this study is to determine the effect of group activity therapy program to enhance negative symptoms among patients with schizophrenia.

**Methodology**

**Aim of the Study:**
This study aimed to determine the effect of group activity therapy program to enhance negative symptoms (e.g. apathy, anhedonia, avolition…etc.) among patients with schizophrenia.

**This aim was achieved through:**
- Developing group activity therapy program to enhance negative symptoms among patients with schizophrenia.
- Implementing group activity therapy program to enhance negative symptoms among patients with schizophrenia.
- Evaluating the effect of group activity therapy program to enhance negative symptoms among patients with schizophrenia.

**Research Hypothesis:**
Group activity therapy program will have a positive effect on enhancement of negative symptoms (Affective flattening or blunting, alogia, avolition – apathy, anhedonia - asociality and attention) among patients with schizophrenia.
Theoretical definition

Negative symptoms means affective flattening or blunting, alogia, avolition – apathy, anhedonia - asociality and inattention, which have a severe impact on functional and recovery outcomes and current treatment options are limited.

Operational Definition:

- Group activity therapy program included morning care and personal hygiene activities, occupational therapy, art therapy, physical exercise, and recreational therapy.
- Scale for the Assessment of Negative Symptoms (SANS) Andreasen (1997) in this study is limited to five subscales (Affective flattening or blunting, alogia, avolition – apathy, anhedonia - asociality and attention). It was used to measure the effect of group activity therapy program to enhance negative symptoms.

Research Design:

A quasi experimental design was used to achieve the aim of the study.

Research Setting:

This study was conducted at the Psychiatric Mental Health Hospital in Benha City, Qalubia Governorate, which is affiliated to General Secretariat of Mental Health in Egypt. It has 6 departments (4 males and 1 female); with a capacity of 211 beds. It works 24 hours per day, 7 days per week. The hospital provides care for patients diagnosed with acute and chronic mental illnesses who need institutional care, and has outpatients’ clinics for follow up. The hospital provides care for addicted patients in addiction department. The total number of patients with acute and chronic mental illnesses was 126 patients. The total numbers of patients diagnosed with schizophrenia was 102 patients.

Research Subjects:

Sample size:

The estimated sample size is 66 patients, at confidence level 95% and precision rate 60%

Sample technique:

A convenience sample of 66 schizophrenic patients diagnosed by psychiatrists was included from the above setting for the conduction of this study. This sample was divided into two matched groups into study group and control group. Patients in both groups received their regular psychotropic medications. The study group only received
the group activity therapy program. Both groups fulfilled the following inclusion criteria:

1. Diagnosed as schizophrenic patients since \textgreater 1 year or less.
2. Date of patient's last admission to hospital should be within \textless 1 month or less.
3. Both sexes.
4. Able to communicate.
5. Willingness to participate in the study.
6. Have no organic brain disorders, substance abuse and other psychotic disorders.

\textbf{Tools of Data Collection:}

The data was collected using the following tools:

\textbf{1-Tool (1):- A structured Interview Questionnaire which developed by the researcher & consists of two parts, (Appendix I):}

\textbf{Part I: Socio-demographic data:} To elicit data about the patients characteristics such as patient’s name, code number, age, sex, marital status, level of education, work status, living place and income.

\textbf{Part II: Clinical data:} which includes: age at onset of illness, date of last admission to hospital, parental consanguinity, duration of illness, frequency of admission in psychiatric hospitals and mode of admission to hospital.

\textbf{2-Tool (2): Scale for the Assessment of Negative Symptoms (SANS), (Appendix I):}

-This scale was developed by \textit{Andreasen (14A)}. It's a rating scale consists of 25 items. It's the most widely used scale for assessment of negative symptoms in schizophrenia. It was translated into Arabic version and modified by the researcher after revision by jury of 5 experts in psychiatric field. It was adopted by the researcher to be as follow: 26 items rating scale, each item of this scale was rated on four point scale with range from none (\textbullet) to severe (\textcircled{7}). The total score of this scale ranges from (\textbullet) lower score, to (\textcircled{7}) the higher score. Higher score reflect more severe negative symptoms.

- This scale consists of five subscales as follow: Affective flattening or blunting (This subscale consists of 7 items). Alogia (This subscale consists of 4 items). Avolition - Apathy (This subscale consists of 3 items). Anhedonia - Asociality (This subscale consists of 4 items). Attention (This subscale consists of 2 items).

\textit{Scoring system was categorized as follows:}

\textbullet \textbullet \textbullet - \textcircled{7} \textbullet mild negative symptoms.
Methods:
Field work:

The present study was conducted in four phases:
I. Preparatory Phase:

This included reviewing of relevant literature of different studies related to the topic of research using textbooks, articles, and magazines to get clear pictures of all the aspects related to the research topic to design the program.

- Administrative Approval:

A written letter was issued from the Dean of Faculty of Nursing, Benha University to obtain the approval for data collection from the director of Psychiatric Mental hospital at Benha City Kaluobia Governorate. An official approval was obtained from the director of the Psychiatric Mental Health Hospital at Benha City, Kaluobia Governorate. Moreover an official approval was obtained from the Human Rights Protection Committee and Research Committee of General Secretariat of Mental Health in Egypt after revision of the study protocol, tools, and the booklet. The purpose and the nature of the study were explained to the hospital's staff, and then it was possible to carry out the study with minimum resistance.

- Ethical Consideration:

Before conducting the study the patients were assured about confidentiality and anonymity of their obtained information throughout the study. They were informed about their right to refuse to participate in the study and the right to withdraw from the study at any time. Acceptance of patients who agreed to participate in the study was taken orally from the patient and through a written consent filled by assistance of the patients’ rights committee in the hospital (Appendix ).

- Content Validity:

Validity of tools was done by a group of five experts. Two of them were specialized in the psychiatric medicine and the other three were specialized in the psychiatric nursing field to check the relevancy, clarity, comprehensiveness, and applicability of the questions. According to their opinions, modifications were done and the final form was developed.
- **Modification in tools (¶& †)** was: modification of some words in the Arabic form of the tool to give the right meaning of the phrase.

- ** Modification of tool (†) was:**
  - Adoption of the scale to be ²• items rating scale. This modification was done with the objective of its accuracy and consistency, and to avoid repetition of some points as the last item of each subscale was a repetition of the previous items in the form of global rating. Therefore theses points were excluded: (Global rating of affective flattening, Global rating of alogia, Global rating of avolition – apathy, Global rating of anhedonia – asociality, Global rating of attention).
  - Each item of this scale was rated on four point rating scale rather than six point rating scale to prevent overlapping between certain points due to the convergence of their meanings, and makes data collection more accurate and less time consuming. Therefore the modification was: None = •, mild= †, moderate = ‡ and severe = §. Rather than: None = •, questionable = †, mild = ‡, moderate = §, marked= ¶, severe= ¶.
  - Moreover each item of the scale was divided into four points to help the researcher to give an accurate score for each item (Appendix I).

- **Reliability of the tools:**

  Testing the reliability of the tools through Alpha Cronbach reliability analysis.

<table>
<thead>
<tr>
<th>Items</th>
<th>No. of items</th>
<th>Alpha Cronbach</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale for the Assessment of Negative Symptoms (SANS)</td>
<td>²•</td>
<td>.³•</td>
<td>¸.³</td>
<td>.•••</td>
</tr>
</tbody>
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- **Pilot Study:**

  Before starting data collection a pilot study was conducted to assess the clarity and applicability of the study tools, and identify the time needed to fill each tool. It was carried out on ¹⁄₂ of the subjects, who were excluded from the main study sample. According to the result of the pilot study the necessary modifications were done for tool ² as stated before.
II: Designing phase:

This phase aimed at designing for the group activity therapy program through setting educational objects, preparing the group activity therapy program and designing the methodology and media.

**Development of the group activity therapy program: - (Appendix )**

The group activity therapy program was developed by the researcher after a thorough review of the related literatures and after making of the pilot study to identify the patient’s problems and needs related to negative symptoms. The group activity therapy program aimed to enhance negative symptoms (eg. apathy, anhedonia, avolition….etc) among patients with schizophrenia. This program has a set of general objectives, and specific objectives for each session. The number of program's sessions was 13 sessions. Based on the results obtained from the assessment tools and review of literature, the program content was developed by the researcher in the form of a booklet, which was revised and approved by the supervisors, after that the final booklet is distributed for patients and the staff nurses in the first session.

**General Objectives of the group activity therapy program:-**

At the end of the group activity therapy program implementation, the following must be achieved for study group patients:

1. Gain information about schizophrenia and negative symptoms of schizophrenia.
2. Apply group activity therapy program skills.
3. Enhancement of their negative symptoms of schizophrenia.

**Specific Objectives of the group activity therapy program:**

At the end of the group activity therapy program implementation, the patients will be able to:

1. Identify the meaning of schizophrenia and negative symptoms of schizophrenia.
2. Identify the meaning and types of group activity therapy and its role in enhancing negative symptoms of schizophrenia.
3. Apply some of important morning care and personal hygiene activities as teeth brushing and hair care.
4. Become more socialized and interact better with other people in their environment, especially the group involved in the program.
- Identify benefits of physical exercise for mind and body.
- Learn the right way to practice some physical exercises and practice them.
- Apply some group occupational therapy activities.
- Apply some group art therapy activities.
- Apply some group recreational therapy activities.
- Respond to life situations with appropriate emotions such as smiling, crying, eye contact and other verbal and nonverbal communication skills.
- Express their feelings and needs verbally and be able to answer any question posed to them clearly and be able to open a constructive dialogue and continue it.
- Pay attention when talking to others, and improve their performance when testing attention.

### III. Implementation Phase:

This phase was beginning by data collection then implementation of the group activity therapy program for schizophrenic patients (study group) who meet previously mentioned criteria.

#### 1. Data collection (Pre-test):

Data collection of this study was being carried out at Psychiatric Mental Health Hospital at Benha City, Kaluobia Governorate. The data collection was done on both control and study groups from ١/ December-١٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠٠..
The sessions of group activity therapy program were carried out during the period of (1/Febreuary-26/February to 26/May-3/May).

The program sessions were conducted in the recreational room in inpatient wards of the setting stated above.

To ensure that the patients understand the program contents, each session was started with a summary about what was given through the previous session, and the objectives of the new session were mentioned taking into consideration using simple language to suit all patients.

During the session the researcher used demonstration, and modeling by the researcher and one patient for practice skills of group activities. After that the researcher used re-demonstration of the skill by each patient to master the skill. After finishing, the researcher thanked the patients for participation and encouraged the patients for asking about any unclear points.

Moreover, the researcher made a summary at the end of the session and told the patients about the time of the next session.

- Strategies of program implementation:-
  - Methods of teaching: - Open discussion, group discussion, brain storming, demonstration, real situation, positive reinforcement, group cooperation, role play.

  - Media: - brochure, materials used in personal hygiene as soap, and hair brush, plastic nail clipper, tooth brush, and tooth paste. Illustrative pictures, wrist watch or mobile for watching time during physical exercise. Materials used in handicrafts as colored beads, a spool of thread, stan's roses, glue, a spool of thread, plastic sewing needle, plastic scissor, cloth and cotton. Materials used in drawing, coloring, and artworks e.g. drawing and coloring booklets, coloring pencils, glue, colored buttons. Materials used in recreational activities as puzzles, role play scripts, simple stories for discussion and mobile phone for music listening

  - Methods of evaluation:- Feedback through oral questions, re-demonstration, positive participation, direct observation, role play.

IV: Evaluation Phase (post-test).

-This phase aimed to estimate the effect of group activity therapy program on enhancement of negative symptoms of schizophrenia in study group patients. After
the conduction of the group activity therapy program sessions for the study group, a post-test was done for the study group using the study tool.

- Filling of tool two (Scale for the assessment of negative symptoms) of control group was done by the researcher in conjunction with end of the program implementation on the study group to ensure that both control group and study group were exposed to the same circumstances e.g. the period of time stayed into hospital and taking of psychotropic medication, except of that only the study group was received the group activity therapy program, to ensure that the group activity therapy program has an effect in enhancing the negative symptoms of schizophrenia.

**Statistical Design:**

The collected data were organized, computerized, tabulated and analyzed by using the Statistical Package for Social Science (SPSS) version 26. Data analysis was accomplished by the use of number, percentage distribution, mean, and standard deviation. Paired t-test was used to compare means within one group, and t-test was used to compare two independent means. A significant level value was considered when p-value =< 0.05.

**Difficulties of the Study:**

- Shortness of the time allowed by the patients’ rights committee for the researcher during the day to meet the patients and to group them in one place to implement program sessions.
- Lack of privacy during program implementation. There was no special place for conducting the program; hence the researcher conducted the program in the recreational room and some times in the in-patient wards. Because of this, the researcher was exposed to interruptions by other patients, that lead to increased distractibility of the studied patients and sometimes the researcher was obliged to repeat or even start again.

**Results:**

**Figure (1) Study group patients according to their total negative symptoms at pre and post group activity therapy program:** This figure shows that, there is a highly statistically significant difference at (P= < 0.01) between pre and post implementation
of group activity therapy program in total negative symptoms of the study group patients.

**Table (1):** Socio-demographic characteristics of the studied sample (study and control group).

**Table (†):** Clinical characteristics of the studied sample (study and control group).

**Figure (†): Study group patients according to their total negative symptoms at pre and post group activity therapy program.**

![Bar chart showing comparison of negative symptoms scores before and after activity therapy program implementation.](image)

**Discussion**

Concerning level of negative symptoms among study group patients at pre and post group activity therapy program, the present study showed that there was a significant improvement in their negative symptom scores after implementation of the group activity therapy program (SANS total score, affective flattening or blunting, alogia, avolition – apathy, anhedonia – asociality, and attention) than before activity therapy program implementation. This result was consistent with (Lily, et al., 9102) who found that group body therapy such as physical exercise and dance therapy lowered the total negative symptoms scores among his studied patients comparing with control group.
Concerning the age of the studied sample (study and control group), the present study showed that the age of majority of patients ranged between \(26\) - \(36\) years old. This could be due to the fact that age of onset of schizophrenia ranges between \(26\) to \(36\) years of age and the studied sample in this study was diagnosed within one year or less.

The result of the present study revealed that two thirds of the studied sample (study and control group) were males. This could be due to that the female patients show better treatment response than male and approximately \(56\%\) less hospitalizations (Li, et al., 1992). Therefore, the number of female patients hospitalized to the hospital where this study conducted was limited.

Concerning level of education of the studied sample, the present study showed that the majority of the studied sample was moderately educated. This could illustrate why most of patients have not enough income as they didn’t have a stable job. Moreover this could be due to that the study conducted in a governmental hospital where most people admitted to it are from middle class and low income people. Moreover this illustrate that the lowest social groups have the highest admission rates. This was consistent with (Goldberg & Morrison, 1984) who found that the mental hospital admission rate for schizophrenia was higher in poor districts where people from low social classes live.

**Conclusions:**

The study demonstrates that group activity therapy is highly effective in enhancement of negative symptoms among patients with schizophrenia. Results strongly suggest that group activity therapy should be embedded in the daily clinical routine.

**Recommendations:**

Group activity therapy should be a part of the patient’s usual care in all psychiatric and mental health hospitals and not only be a part of a study.
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