# Effect of Empowerment Program on Recovery and Helplessness among Patients with Schizophrenia

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#### Abstract

**Background:** Empowerment should be embraced as an innovative approach that has a significant role in the recovery of patients suffering from schizophrenia that goes beyond symptom control and thus reduces their feelings of helplessness. **Aim**: The objective of the current research was to evaluate the effect of empowerment program on recovery and helplessness among patients with schizophrenia. **Research design**: The study's aim was achieved through utilizing a pre-posttest quasi-experimental research design. **Sample:** Fifty schizophrenic patients at Minia Hospital for Mental Health and addiction treatment were selected as a purposeful sample. **Tools:** Personal and clinical data questionnaire, Recovery Assessment Scale, and Learned Helplessness Scale (LHS) were utilized. **Results:** Findings proved high statistically significant differences in the total scores of recovery and helplessness scales before and after program implementation. **Conclusion:** Empowerment program revealed significant effect on boosting recovery and reducing helplessness through a variety of practical intervention and coping strategies. **Recommendations:** involve empowerment program as a component of a holistic psychosocial interventions to schizophrenic patients.

# Keywords: Empowerment program, Helplessness, Recovery & Schizophrenia

# Introduction

Schizophrenia is a persistent disabling condition linked with severe impairments in numerous aspects of functioning, as community, interpersonal, or professional relationships, along with skill acquisition (Fitah et al., 2023). Schizophrenia is characterized by a range of cognitive, behavioral, and emotional dysfunctions classified into positive and negative symptoms (Merikangas et al., 2022). According to Khalesi et al., (2019), schizophrenia is a serious and mental disorder. stigmatized People with schizophrenia are frequently misperceived as being more dangerous and inclined to commit crimes. Besides, there is a significant increase in unemployment rates, and individuals impacted by the ailment and disability have a reduced life expectancy of 10 to 20 years.

Schizophrenia is a severe form of psychosis with a wide spectrum of symptoms which negatively affect patients' recovery and increase their feeling of helplessness. Recovery is a new approach which means a process of change through which mental ill patients will attain better health and well-being, live independently and make an effort to achieve one's own full potential. This approach does not focus on fully resolving symptoms but emphasizes capacity to recover and control over mental health problems and life obstacles (**Shalaby et al., 2023**).

Notably, recent meta-analyses and follow-up researches have revealed that the recovery percentages of people with mental disorders just varied from 13.5 to 37.9% and added that the recovery of patients from schizophrenia will reduce medical expenses (Martinelli & Ruggeri, 2020). Recovery can be seen as the ability for an individual with psychiatric disorder to live a satisfactory life, thus, fostering recovery amongst clients with mental disorders in general and schizophrenia in specific is urgently needed (Lee et al., 2021).

Most persons with chronic illnesses suffer from feelings of helplessness. Learned helplessness is more prevalent in patients who consider their illness as an adverse incident and experience powerless to alter its effects (Xie et al., 2022). Learned helplessness has an adverse effect on behavior and physiological functions, as well as can also contribute to the emergence of mental illnesses as schizophrenia. Besides, Schizophrenic patients commonly experience trouble completing activities and often display learned helplessness behavioral patterns. Distinctively, those patients may possess unfavorable ideas concerning their capacity to execute an activity that adversely affects their effort and motivation (Winterflood & Climie, 2020). According to (Kim et al., 2023), schizophrenia patients experience helplessness during involuntary treatment, which significantly affects recovery.

Empowerment is defined as having a power over the societal and organizational frameworks where in a person resides as well as restoring control of one's own life. The main attributes of empowerment involve a capacity to take decisions, an awareness that one is capable of making something different, boosting one's positive self-image, assertiveness, gaining knowledge about and expressing one's anger, feeling a member of a group, not feeling lonely, recognizing that one's has rights, continuous change and growth, self-initiated, and beating stigma amongst others (**Hsieh et al., 2023**).

In this respect, patients with mental disorders require empowerment to achieve recovery. Schizophrenic patients favor interventions which empower and allow those psychotic persons to act independently in whole aspects of community everyday life (Jaiswal et al., 2020). The program also has the goal of recovery for patients with schizophrenia that goes beyond symptom control and thus reduces their feelings of helplessness (Videbeck, 2020). For empowering persons suffering from schizophrenia, the primary target of the program, which focused on psychiatric inpatients, was to increase the patients' resilience and hope for recovery. Mental health nurses greatly contribute for empowering individuals with schizophrenia through reinforcing a patient's perception of own competence for making decisions relating medical care (Mostfa et al., 2022).

#### Significance of the study:

Schizophrenia is a common and chronic psychotic condition affecting approximately 24 million people worldwide and constitutes the majority of patients in psychiatric facilities of Egypt (Manea et al., 2020; Shanko et al., 2023). An Egyptian research achieved by Elsherif et al., (2022) documented that most of patients with schizophrenia have lower levels of recovery. Besides, Winterflood & Climie, (2020) reported that individuals who suffer from schizophrenia generally experience difficulty to complete tasks and frequently display behaviors related learned helplessness. Additionally, Khanthavudh et al., (2023) showed better function of the empowerment intervention in promoting recovery and lessening helplessness.

Studies have been demonstrated that empowerment interventions are beneficial for those suffering from schizophrenia by means of facilitating better recovery from a debilitating and persistent illness. Regardless of the limits brought on by the mental disorder, empowerment program also includes creating a new purpose for life, coping mechanisms, inclusion in society and a supporting relationships. Enhancing the journey of recovery involves empowering a person having schizophrenia for pursuing the way for recovery and offering opportunities as well as a supportive environment. Subsequently, the current research was performed for evaluating the empowerment program's effect on recovery and helplessness among patients suffering from schizophrenia.

### Aim of the Study

This research aimed to evaluate the effect of empowerment program on recovery and helplessness among patients with schizophrenia.

# **Research hypotheses**

- **H1:** Patients with schizophrenia who will participate in the empowerment program will exhibit high scores in recovery after the program's implementation than before.
- **H2:** Patients with schizophrenia who will participate in the empowerment program will exhibit lower scores in helplessness after the program's implementation than before.

# **Patients and Method**

#### **Research Design:**

Quasi-experimental research design (One group; Pre, posttest) was employed to achieve the research's aim. **Setting**:

The research was carried out at inpatient units of Minia Hospital for Mental Health and Addiction Treatment which located in New Minia City, Upper Egypt and affiliated to ministry of health. This hospital contains two floors; the first one includes the inpatient unit for females, outpatient clinics and pharmacy. The next floor comprises administration, nursing office, department dedicated to addiction treatment and male inpatient ward. The hospital has 53 beds available for patients of both genders. The nine districts of Minia Governorate are served by this hospital.

#### Study subjects:

A purposive sample of established diagnosed fifty hospitalized clients with schizophrenia brought in the previously indicated setting participated in the current research. Total annual admissions for schizophrenia in 2023 in Minia Hospital for Mental Health and Addiction Treatment were 166 patients. Using the following statistical formula, sample size was determined:

$$n = \frac{N}{(N-1)B2+1}$$

n= sample size, N= total population number at previous year, B= proportion of error (0.05) (**Thompson, 2012**).

#### Inclusion criteria:

- Age (18 65) years old.
- Sufficient cognitive capacity for completing the program.

#### **Exclusion criteria:**

- Presence of evidence of mental retardation.
- Patients with organic brain disorders.
- Comorbid diagnosis of substance abuse disorders.

# **Data Collection Tools:**

# Personal and clinical data questionnaire:

This questionnaire was constructed by the researchers for assessing the personal characteristics and clinical data of individuals with schizophrenia that include: age, gender, residence, marital status, educational levels, working status, mode of admission by psychiatric hospital, number of hospitalizations, and duration of illness.

#### **Recovery Assessment Scale (RAS):**

The original version of Recovery Assessment Scale (RAS) was constructed by Giffort et al., (1995). This scale was consisted of 41 items which then reduced by Corrigan et al., (2004) into 24 items in an English language and translated into Arabic by researchers that adopted in this study. It was designed to assess recovery from an individual's perspective with a particular focusing on self-determination and hope. Items were grouped into five subscales: the first is evaluating personal confidence and hope (9 items). The second subscale is evaluating willingness to ask for help (3 items). Third one is investigating goal and success orientation (5 items). Fourth subscale is judging reliance on others (4 items). The last subscale is estimating not dominated by symptoms (3 items). Participants were asked to select their choice from one of four point Likert-type scales that best describes patient's status. Options for responses were: strongly disagree (1); disagree (2); agree (3); and finally, strongly agree scored as (4).

The RAS was scored by summing the number ranking of the response for each of the 24 questions. RAS yields a total recovery score from 24 to 96 with greater scores indicating higher recovery. The recovery's level displayed on RAS is as follows: 24-48 refer to low recovery level, and high recovery decided when the score was 49 to 96.

# Learned Helplessness Scale (LHS):

This scale was constructed by **Quinless & Nelson**, (**1988**) in an English language and Arabic version was done by researchers. Learned Helplessness Scale (LHS) is a self-report questionnaire including 20 items with each has been rated on four response options beginning from strongly agrees (4); through to strongly disagree (1). Items 1, 4, 7, 8, 9. 11, 13, 15, 17, and 18 were scored in this way: (4) strongly agree; (3) agree; (2) disagree, and (1) strongly disagree. While the remaining items 2, 3, 5, 6, 10, 12, 14, 16, 19, and 20 take a reverse score. The total twenty items of LHS scores were summed ranges from 20 to 80, with a great score representing individuals' suffering higher level of helplessness.

The global scores are grouped as low helplessness when the score was from 20 to 40 and high level of helplessness when the score was above 41. A qualified professional translator translated the study tools into Arabic, which were then back-translated through an independent bilingual specialist from the population group.

#### Validity and Reliability

A panel of five specialists from Psychiatric and Mental Health Nursing domain assessed the study tools' content validity. The statements were reviewed for comprehensiveness, item sequencing, clarity, relevance, format, and applicability. The content of tools was valid and pertinent to the research aim based on the opinion of all jury members. The researchers employed the test-retest approach to measure internal consistency in order to determine the reliability of the research tools. The Cronbach's alphacoefficient test had been used to contrast repeated test responses. Internal consistency of RAS and LHS was estimated through the application of Cronbach's alpha coefficients test and resulted in values of 0.89 and 0.90, respectively that means excellent reliability.

#### Procedures

Structured empowerment intervention was designed by the researchers following a review of present and previous pertinent literature on numerous studyrelated issues using recently published books, available journals, and internet resources to familiarize oneself with the problem of current provide research and а comprehensive understanding regarding the subject, for selecting the suitable tools and designing the research program. Data were collected and the program was applied within duration of four months ranged between January to April 2024. The empowerment program was designed through the integration of four phases.

# Assessment phase:

This stage was executed to assess baseline data for patients with schizophrenia through utilizing previously mentioned tools. The assessment stage was carried out for all participants. For collecting the required data, every patient was being interviewed, and about 25 to 35 minutes were needed for completing the tools.

#### Planning (Preparatory phase):

This stage involved the program approach, sufficient time required, total number of sessions, appropriate teaching methods and media that utilized. Empowerment program spanned a number of eight sessions for each subgroup of the study sample, involving twice-weekly, each lasting approximately 60–90 min. The program comprised a variety of teaching methods, including lectures, group discussions, patient experience sharing, photographs, brochures, posters, and role playing.

#### Implementation phase.

During this phase, the patients who included in the study were divided into five subgroups; each one contains 10 participants. The empowerment program covered the theoretical part about schizophrenia as; symptoms, importance of medication adherence and its relation with patients' recovery and helplessness. Also, the program included several practical sessions in which teaching different styles of communication with applying on situations. In addition, teaching patients how to manage self-care activities and practicing them on stress management strategies was covered in the program.

The researchers applied the teach-back technique throughout the training session, as the participants were instructed for repeating the information they had been acquired in their particular terms. For promoting active participation, the researchers posed questions and received open feedback. After that, by the end of the session, posters and Arabic handout including concise knowledge that were being offered throughout the practical session and augmented with colorful photos was being delivered. After each session, researchers spent brief period to review the content of session as well as obtaining patients' feedback.

#### The session's content was described as follows:

**Session 1:** Brief description on the nature, symptoms associated with schizophrenia and direct impact of these features on patients. Also, describe to patients how to overcome stigma.

**Session 2:** Discussing challenges of recovery in everyday living, discovering individual's strength for achieving recovery and practicing patients how to seek support from available system as family members.

**Session 3:** Formulate daily regimen to enhance individual abilities. Teach patients how to share personal experiences and different situation with family members.

**Session 4:** Improving individual's skills of communication and self-care management through the following practice: Practicing different styles (verbal and nonverbal) of communication in different situations.

**Session 5:** Supporting general hygiene on one's own practicing daily duties.

**Session 6:** Teach patients the necessity of medication adherence and its relation with recovery and helplessness by: detecting benefits and side effects of every drug, acquiring knowledge about medication adherence techniques.

**Session 7:** Teaching crisis intervention skills as well as strategies for correcting stressful and problematic life situations.

**Session 8:** The researcher will revise and summarize the previous sessions with the participants. The summary focused on knowledge and skills that acquired during the sessions. Evaluation for each session was done through immediate feedback from participants' assigned tasks.

#### **Evaluation phase**:

Finally, this stage was ended through the latest session utilizing the same research tools to gather assessment data related to post program (posttest) and repeated the evaluation, one and half month later after program implementation (follow up) for the studied patients.

#### **Pilot Study**

As a means of assessing study's tools regarding their clarity, applicability, and time needed to complete them, a pilot study was performed on exactly 10% (5 participants) of entire sample size. The sample chosen for the pilot study was involved in the main study since the assessment tools were left unchanged.

#### **Ethical considerations**

Following official permission bv the ethical committee of Minia University's Faculty of Nursing was obtained (Code No.; REC202411), the director of Minia Hospital for Mental Health and Addiction Treatment in New Minia City provided official approval for data collecting. Participants who matched the inclusion criteria for this research were interviewed by the researchers. In this step, the objective and nature of the study were clarified, and official permission was obtained. Patients were being told that their involvement in the research was entirely optional; the researcher also notified the patients regarding their possibility to leave the study whenever they want. The coding of the data ensured confidentiality and anonymity.

#### Limitations of the Study

The study may be limited for several reasons. Firstly, a small sample size was conducted in the present research because the mentioned setting was the sole mental health hospital with little capacity serving Minia governorate and its entire districts. Also, absence of specific or noiseless area for meeting patients and applied the program, so, the researchers faced many interruptions and obstacles, which lead to frequent repetition. Finally, despite many attempts have been done to get pertinent studies using various databases and several methods of searching, variations in the current research variables; as helplessness has ended by a failure to restore relevant articles. These limitations highlight areas for further future research endeavors.

#### **Statistical Analysis**

SPSS for windows version 20.0 (SPSS, Chicago, IL) was utilized to carry out all statistical analyses. The Continuous data were distributed normally as well as were displayed by mean ±standard deviation (SD). Numbers and percentages were employed to present the categorical data. The one-way analysis of variance (ANOVA) test was employed for comparing more than two for variables with continuous data. The Chi-

square test (or fisher's exact test when applicable) was utilized to compare variables with categorical data. For testing correlations between two variables having continuous data, Correlation co-efficient test was applied. Besides, the reliability (internal consistency) for the questionnaires utilized in this research was estimated. Statistical significance was established at p<0.05.

# Results

Personal data	No.	%	
Age / years	-	-	
18 < 40	40	80.0	
40 < 50	6	12.0	
50-65	4	8.0	
Mean ±SD	36.9±8.0		
Gender			
Male	39	78.0	
Female	11	22.0	
Residence			
Urban	11	22.0	
Rural	39	78.0	
Marital status			
Single	35	70.0	
Married	8	16.0	
Divorced	6	12.0	
Widower	1	2.0	
Educational level			
Not read and write	6	12.0	
Primary and secondary education	40	80.0	
University and above	4	8.0	
Working status			
Working	12	24.0	
Not working	38	76.0	

Table (2): Frequency distribution of the studied patients relating to their clinical data (n= 50)

Clinical data	No.	%						
Mode of admission to psychiatric hospital								
Voluntary	5	10.0						
Involuntary	45	90.0						
Number of hospitalizations								
Once	8	16.0						
2 times	8	16.0						
3 times and more	34	68.0						
Duration of illness (Years)								
Less than one	8	16.0						
1 to less than 3	6	12.0						
3 or more	36	72.0						



Figure (1): Frequency distribution of studied patients 'recovery levels at pre, post, and follow up (n = 50).

Table (3): Comparison of studied patients'	recovery	assessment	scores	and its	subscales	between
pre, post and follow- up $(n = 50)$ .	•					

<b>Recovery Subscales</b>	Pre	Post Follow-Up		Signi te	ficance st 1	Significance test 2		
-	Mean ±SD	Mean ±SD	Mean ±SD	t-test	p-value	t-test	p-value	
Goal and success orientation	9.5 ±4.7	$15.7 \pm 4.8$	$14.9 \pm 4.8$	6.526 <sup>\$</sup>	< 0.001**	5.683 <sup>\$</sup>	< 0.001**	
Personal confidence and hope	$16.6 \pm 5.8$	28.3 ±6.9	$26.7 \pm 7.1$	9.178 <sup>\$</sup>	< 0.001**	7.790 <sup>\$</sup>	< 0.001**	
Not dominated by symptoms	4.9 ±1.9	8.7 ±2.9	8.2 ±2.9	7.750 <sup>\$</sup>	< 0.001**	6.730 <sup>\$</sup>	< 0.001**	
Willingness to ask for help	4.8 ±2.1	9.1 ±3.0	8.4 ±3.1	8.303 <sup>\$</sup>	< 0.001**	6.798 <sup>\$</sup>	< 0.001**	
<b>Reliance on others</b>	$7.3 \pm 2.2$	$12.1 \pm 3.3$	$10.9 \pm 3.8$	8.557 <sup>\$</sup>	< 0.001**	5.797 <sup>\$</sup>	< 0.001**	
Total recovery assessment level	43.2 ±13.9	73.9 ±19.2	69.1 ±19.0	9.128 <sup>\$</sup>	< 0.001**	7.749 <sup>\$</sup>	< 0.001**	

Significance test 1: \$: patient's t-test between pre and post intervention, Significance test 2: \$: patient's t-test between pre and follow – up

Table (4): Comparison of studied patients	' learned	helplessness	scores	levels	between	pre,	post	and
follow up $(n = 50)$ .								

Learned Helplessness		Pre		Post		Follow – Up		Significance test 1		Significance test 2	
levels	n	%	n	%	n	%	$\mathbf{X}^2$	Р	$\mathbf{X}^2$	Р	
Low learned helplessness	20	40.0	32	64.0	39	78.0	5 760#	0.016*	14.024#	<0.001**	
High learned helplessness	30	60.0	18	36.0	11	22.0	5.709	0.010	14.924	<0.001	
Mean ±SD	43.4	4 ±9.8	35.6	±11.9	34.1	±10.3	3.577 <sup>\$</sup>	<0.001**	4.625 <sup>\$</sup>	<0.001**	

Significance test 1: #: Chi – square test between pre and post intervention, : patient's t-test between pre and post intervention, Significance test 2: Chi – square test between pre and follow – up: patient's t-test between pre and follow – up

Table (5): Relation between	recovery assessment mea	n scores with per	rsonal and clinical	data among
studied patients a	t pre, post and follow up	(n=50).		C

	Recovery assessment score									
Personal and	Pr	e	Po	st	Follow – Up					
clinical data	Mean ±SD	Significa nce test	Mean ±SD	Significa nce test	Mean ±SD	Significanc e test				
Age (Years)	-	-	-	-						
18 < 40	$44.0 \pm 14.6$	E_0.959	74.7 ±18.6	$E_{-0.716}$	$70.9 \pm 18.4$	E-0.802				
40 < 50	36.3 ±4.9	P=0.838, $P=0.431$	$76.3 \pm 19.0$	$\Gamma=0.710,$ P=0.404	$64.0 \pm 20.6$	$\Gamma=0.892,$ P=0.417				
50 - 60	$45.5 \pm 15.2$	1 -0.431	$63.0 \pm 27.3$	1 -0.494	59.5 ±24.1	1 =0.417				
Gender										
Male	$42.7 \pm 11.9$	T=1.647,	72.1 ±21.1	T=1.281,	$66.6 \pm 20.4$	T=1.814,				
Female	50.1 ±17.1	P=0.105	80.5 ±7.9	P=0.206	78.1 ±8.5	P=0.076				

	Recovery assessment score							
Personal and	Pr	e	Po	ost	Follow	– Up		
clinical data	Mean ±SD	Significa nce test	Mean ±SD	Significa nce test	Mean ±SD	Significanc e test		
Residence	-		-			-		
Urban	41.0 ±9.8	T=0.598,	63.5 ±24.4	T=2.121,	52.6 ±20.5	T=3.643,		
Rural	$43.8 \pm 14.8$	P=0.553	76.9 ±16.7	P=0.039*	73.8 ±15.9	P<0.001**		
Marital status								
Single	$43.9 \pm 14.0$		71.3 ±21.0		68.1 ±20.6			
Married	39.5 ±12.1	F=0.324,	83.9 ±4.8	F=1.077,	$70.4 \pm 14.6$	F=0.130,		
Divorced	45.5 ±17.3	P=0.808	74.3 ±18.9	P=0.368	73.0 ±18.1	P=0.942		
Widower	37.0 ±0.0		86.0 ±0.0		72.0 ±0.0			
Educational level								
Not read and write	$43.0 \pm 12.6$		55.3 ±21.7		$58.0 \pm 11.1$			
Primary and	43.3 ±14.1	F=0.007,	60.8 ±22.1	F=4.547,	$62.0 \pm 11.8$	F=4.319,		
secondary education		P=0.993		P=0.015*		P=0.019*		
University and above	$42.5 \pm 17.4$		81.0 ±18.9		78.9 ±12.7			
Working status								
Working	42.9 ±13.3	T=0.086,	66.9 ±23.9	T=1.469,	$61.8 \pm 19.3$	T=1.545,		
Not working	43.3 ±14.2	P=0.932	76.2 ±17.3	P=0.148	$71.4 \pm 18.6$	P=0.129		
Mode of admission to	psychiatric h	ospital						
Voluntary	$43.2 \pm 14.1$	T=0.003,	53.4 ±21.4	T=2.673,	$51.6 \pm 18.4$	T=2.263,		
Involuntary	$43.2 \pm 14.0$	P=0.997	76.2 ±17.8	P=0.010*	71.1 ±18.2	P=0.028*		
Number of								
hospitalizations								
Once	46.1 ±17.9	E-1 156	$72.3 \pm 22.3$	E-0.242	$71.0 \pm 22.0$	E-0 501		
2 times	$36.6 \pm 5.1$	P=0.323	78.3 ±15.2	$\Gamma = 0.242,$ D=0.786	$75.1 \pm 13.5$	$\Gamma = 0.391,$ P = 0.558		
3 times and more	$44.1 \pm 14.1$	r =0.323	$73.3 \pm 19.7$	r =0.780	$67.3 \pm 19.5$	r=0.558		
Duration of illness (Y	ears)							
Less than one	$47.0 \pm 17.1$	E-0.804	$68.0 \pm 26.1$	E-0.452	$68.0 \pm 26.1$	E-0 100		
1 to less than 3	$37.5 \pm 5.8$	P=0.004,	$76.0 \pm 17.2$	P=0.433, $P=0.630$	$7\overline{2.3 \pm 15.2}$	P=0.100,		
3 or more	$43.3 \pm 14.0$	1-0.434	$74.9 \pm 18.1$	r -0.037	$68.8 \pm 18.3$	r -0.903		

Table (6): Correlation between recovery assessment scores and learned helplessness scores among studied patients at pre, post, and follow up (n=50).

Loomod Holplogenoge Soolo	Recovery assessment scale						
Learned Helplessness Scale	Pre	Post	Follow Up				
Pre – test	-0.012 (0.932)						
Post – test		-0.625 (<0.001**)					
Follow – Up			-0.410 (0.003*)				

**Table (1):** Reveals that the mean age of the subjects is  $36.9 \pm 8.0$  and that (80%) of them belong to age group average of 50 to 65 years, (78%) of them are males and an equal percentage from rural areas. In addition, (70%) of the studied patients are single. Regarding educational level, most of patients (80%) have primary and secondary education, and (76%) of them are not working.

**Table (2):** Reveals that (90%) of studied patients have involuntary admissions to psychiatric hospital and (68%) of them admit the hospital more than three times. Besides, (72%) of patients have the disease for three years and above.

**Figure (1):** Demonstrates that, there are 78% of the patients under study exhibits low level of recovery at pretest and only 22% of them exhibit a high recovery

level. Regarding posttest and the follow up test, the percentage of studied patients who have high recovery level is increased to (80% and 76%, respectively). While low level of recovery is seen among (20% and 24%, respectively).

**Table (3):** Reports a highly statistically significant variance between pre-test and post-test as well as between pre-test and follow up in relating to total recovery score and it's subscales with P- value  $(0.001^{**})$ . Regarding total recovery mean score, this was increased to 73.9 ±19.2 and 69.1 ±19.0 at post-test and follow up, respectively.

**Table (4):** Summarizes the presence of high statistical significant differences between pre and post-tests as well as between the pre and follow up tests with P- value  $(0.001^{**})$ . In relating to total

learned helplessness mean score, which was decreased to  $35.6 \pm 11.9$  and to  $34.1 \pm 10.3$  at the posttest and follow up respectively.

Table (5): Clarifies that at the post-test and follow up, there are statistically significant differences between recovery and residence where P- value is (0.039\* and P<0.001\*\*, respectively). In addition, at pre-test, post-test, and follow up, patients in rural areas have the highest recovery mean scores compared to patients in urban areas (43.8 ±14.8& 76.9 ±16.7& 73.8 ±15.9, respectively). As regard educational level, at post and follow up, the highest recovery mean scores are among highly educated patients as (81.0 ±18.9 & 78.9 ±12.7), respectively. Besides, at the post-test and follow up, there are statistically significant differences between recovery and mode of admission to psychiatric hospital where P- value is (0.010\* & 028\*, respectively). In addition, at post-test, and follow up, studied patients that admitted involuntary to hospital have the highest recovery scores (76.2 ±17.8 & 71.1 ±18.2, respectively).

**Table (6):** Demonstrates a statistically significance negative correlations between recovery assessment score and learned helplessness score at post-test and follow up where P- value is (0.001\*\*& 0.003\*, respectively).

# **Discussion:**

The current study's objective was to evaluate the effect of empowerment program on recovery and helplessness among patients with schizophrenia. Concerning demographic data, the current study's findings showed that males made for more than three quarters of schizophrenia patients. This could be connected to the fact that the highest prevalence of those patients was reported among males and that men typically experience the onset of disease earlier than women. This finding was consistent with research conducted by Arafat et al., (2024) who revealed that above three quarters of the schizophrenics were males. In terms of patient age, the results of this study indicated that the majority of the patients were in the 18-39 age range, with a mean age of  $(36.9 \pm 8.0)$ . This might be explained by that schizophrenia is a chronic disability illness that typically emerges in late adolescence and early adulthood. This finding was consistent with a study conducted by El-Aziz et al., (2023) who found that most participants were in the 18-39 age range. Another supported study was carried out by Wahba et al., (2023) who reported that over two thirds of people with schizophrenia belong to age between (20-39) years old.

The study findings discovered that greater than three quarters of the participants came from rural areas.

This outcome could be read as meaning that rural areas are associated with several factors such as; decreased level of socioeconomic status, low levels of education, high poverty, cultural practices and beliefs, as well as the unavailability or the inadequacy of mental health care facilities which all play a key role in incidence of schizophrenia. This outcome agrees with the research findings conducted by **Alam et al.** (2023), which found that (70.6%) of the schizophrenia patients resided in rural areas.

The present results documented that slightly over two thirds of the patients were single. This finding might be attributed to the stigmatizing nature of the mental illness that prevent most of patients with schizophrenia in the Egyptian society to be married as other individuals considered them less than normal people in responsibility. This outcome is attributed to the fact that being a mental- ill patient makes marriages more difficult due to the stigma associated with mental illness, inability to work and low income. This outcome was in line with what **Refai et al.**, (2024) found that above three quarters of schizophrenia patients were single. Similarly, **Ella et al.**, (2024) observed that most of patients with schizophrenia were single.

According to educational level, findings of this research indicated as the most of participants were with low levels of education. These outcomes reflected the impact of schizophrenia on the cognitive functions which consequently influence on school achievement. In addition, the earlier onset of the illness and severity of its symptoms are considered barriers for continuing education. This outcome is in line with **El-Ashry et al. (2024)** results, in which, over ninety percent of the subjects were having basic and secondary education.

In addition, it was observed that the heights percent of patients weren't working. This could be explained by different factors as patients' low level of education, patients' frequent hospitalization, and stigma of schizophrenia. Moreover, the presence of illness manifestations, poor social skills, low recovery and elevated helplessness are considered hinders for working. This outcome was corroborated by **Siddiqui et al.**, (2024), who revered that above three quarters of the sample were not working. Similarly, **Abd-Elsamei et al.**, (2024) reported that above seventy percent of the schizophrenic patients were not working.

In terms of the patients' clinical data, the results proved that almost of the participants were brought into the mental hospital involuntary. This might be related to significant evidence that most of patients suffer from lack of insight about their illness that result in refusing hospitalization, also, stigma associated with schizophrenia makes patients unable to seek treatment from psychiatric hospitals. This result agrees with **Ahmed et al.'s (2022)** findings which revealed that over ninety percent of people with schizophrenia were involuntary admitted to the psychiatric hospital. According to the current study, over two thirds of patients were previously hospitalized three times and more. This could be due to the relapse, the chronicity of the disease, inadequate medication compliance, a lack of social support system, and exposing patients to diverse stresses which all can lead to relapse and rehospitalization. This result corresponds to **Abd-Elhamid et al., (2022)** findings which proved that above sixty percent of the participants in the study were hospitalized for more than 3 times.

Based on the current study's findings, about three quarters of the patients had the illness for three years and above. This might be connected to the factor that schizophrenia is the most prevalent long-term mental disorder and disabling condition. This outcome aligns with the conclusions of **Galal et al.**, (2023) who claimed that seventy five percent of the subjects suffered from the illness for two years and above. Similarly, **Ageeb et al.**, (2023) corroborate this conclusion and clarified that most of the sample was having the disease for more than three years.

The current study's findings demonstrated that, at pretest, over three quarters of the schizophrenic patients had low recovery with a lower mean score of (43.2  $\pm 13.9$ ) and approximately one quarter of participant were having a high recovery level. This outcome might be as a result of many factors which include: not taking the drugs as prescribed, inadequate social interactions and communication skills in patients that are consequently to their disease, stigma and discrimination against those who suffer from mental illness, and insufficient support from everyone around the patient. This finding congruent with the study carried out by Abd Elghafar et al., (2022), who found that nearly all schizophrenic patients had a poor recovery level, with a mean total score of (43.69+6.00). Similarly, Shalaby et al., (2023) discovered that eighty percent of schizophrenic patients had a low recovery level. Also, Elsherif et al., (2022) found that almost of patients with schizophrenia had low recovery level and only (11%) of them had a high recovery level.

Regarding the effect of the program on recovery scale, it was observed that total score of recovery and it's all subscales showed highly statistically significant difference in all recovery mean scores between pre, post, as well as follow up. This might be a result of the empowerment program's beneficial impact on improving recovery of the individuals with schizophrenia through offering useful techniques for managing their self-care, communication skills, crisis management, and problem solving skills so, the patients are more likely to accomplish goals and fulfill requirements necessary for recovery. Additionally, the program's content gave participants enough knowledge about the condition, which might improve patients' insight, enable them to develop healthy coping ways, and alter their attitudes about taking their medications as prescribed, all of which would speed up their recovery.

These results are corroborated by a previous research conducted by **Paul et al.**, (2020) who proved that recovery scale and it's all domains had significantly improved in the experimental group, with a p-value of (0.001). Similarly, **Lee et al.** (2021) found that participants' personal recovery increased significantly following the empowerment intervention.

The current results presented highly statistically significant difference in the total helplessness score between pre, post, as well as follow up; which was decreased at post-program and at follow up as opposed to pre-program. This could be interpreted as empowerment program help patients with schizophrenia to learn a wide range of skills such as how to converse: skills of behaving assertively: problem solving techniques; and activities of selfcare as well as keeping personal hygiene which can elevate self-confidence and their functional capacity. This outcome is congruent with Hasan & Musleh (2017) who indicated that the intervention group's schizophrenia patients had greater improvement in their helplessness score both following the intervention and during the follow-up (p < .001).

Regarding the relation between the patients' demographics and their level of recovery, the current study's findings revealed a statistically significant relation between recovery and place of residence at the post-test and follow-up. In addition, at pre-test, post-test, and follow up, patients in rural areas were having the highest total recovery scores compared to patients in urban areas. This could be supported the fact that most of the studied sample came from rural areas, another explanation was reflect the highest efficiency of empowerment program regardless demographic features of the patients. In alignment with this perspective, a recent study of Elsherif et al., (2022) demonstrated a statistically significant relationship between recovery and residence and that the patients in villages were having the highest recovery scores as (72.94±16.579) compared to patients in urban areas.

In contrast, this result disagrees with **El-Monshed** & **Amr's** (2020) finding that patients who lived in urban regions recovered more quickly than those from rural areas. The conflicting results may be attributed to the lack of proper health services in rural areas. Additionally, most people especially those living in

rural areas, think it is humiliating to take care of their mental health issues and find it difficult to talk or vent about these issues with friends and family. This stigma and loneliness impede recovery to a lesser extent.

Concerning the educational level, the present outcome found statistically significant differences at the post-test and follow up between recovery and educational level in which the highest total recovery scores were among highly educated patients. This might be explained by evidence that individuals with high levels of education may be more knowledgeable about their condition. Additionally, education is considered an important contributor to how stressors were experienced by those patients and how one copes in response to these stressful situations. Moreover, education improves self-esteem, increases decision making capacity, contributes to a feeling that one can make a difference and thus positively affects recovery level. This outcome is in an agreement with Abd Elghafar et al., (2022) who showed that patients with university educations had the highest mean overall recovery score.

The results of the current investigation revealed negative correlations between patients' recovery and helplessness scores at the pre, post, as well as follow up. This might be attributed to that high helplessness make patients more likely to believe that they are less than others followed by diminished in one's own value, incapable of meeting needs, as well as limited in their abilities and general capacity for life functioning which in turn affects patients' recovery. This outcome is in agreement with the study of **Mohammed (2023)**, who revealed that there were negative correlations between patients' recovery and helplessness scores at the pre and post intervention.

#### Conclusion

Empowerment has proved to be an essential management for schizophrenia. Empowerment program revealed significant effect on bolstering recovery and reducing helplessness through a variety of practical intervention and coping strategies that empowering patients to walk in the journey of recovery. This study established significant evidence that content and means of program's application was agreeable and can be easily carried out as a beneficial part of psychiatric nursing intervention.

#### Recommendations

The study' recommendations include:

1- Involving the empowerment program as an area of a comprehensive psychosocial management to patient with schizophrenia.

- 2- Extradite in-service and continuing training programs concerning empowerment for all nurses who manage patients with schizophrenia.
- 3- Future studies in various local and international contexts with larger sample size along with family members, and control group design are necessary to reflect further results which could be replicated on a wider basis.
- 4- Planning further research is needful to develop clinical strategies for improving patients' problem solving abilities which a complementary element of empowerment and recovery.

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