Assiut Scientific Nursing Journal
http://asnj.journals.ekb.eg http://www.arabimpactfactor.com
DOI: 10.21608/asnj.2023.179102.1465 http://olddrji.lbp.world/indexedJournals.aspx
https://vlibrary.emro.who.int/journals/assiut-scientific-nursing-journal

Effect of an educational program on self-concept and symptoms of patients with schizophrenia

Azza Mohamed Abd El-Aziz Abuzaid[1], Gellan K. Ahmed[2], Hanaa Kassem Farg[3] & Ola Ali Abd El-Fatah Ali Saraya[4]

[1.] Lecturer of Department of Psychiatric Mental Health Nursing, Faculty of Nursing, Assuit University, Egypt.
[2.] Lecturer of Department of Neurology and Psychiatry, Faculty of Medicine, Assiut University, Assiut, Egypt.
[3.] Assistant professor of Department of Family and Community Health Nursing, Faculty of Nursing, Suez Canal University, Ismailia.
[4.] Assistant professor of Department of Psychiatric Mental Health Nursing, Faculty of Nursing, Suez Canal University, Ismailia.

Abstract

Background: Self-impairments are usually reported in patients with schizophrenia. Medical care for patients with such impairments may last a long time, and such patients may have difficulty recovering their normal daily living. Therefore, educational intervention was developed to restore their self-concept. This study was designed to evaluate the effectiveness of an educational program on self-concept and symptoms of schizophrenic patients. **Methods:** Fifty patients with schizophrenia, diagnosed according to the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders, were recruited. The patients received a psychoeducation program for one month. The assessment included the following: socioeconomic assessment scale, the Offer Self-Image Questionnaire, and the Positive and Negative Syndrome Scale (PANSS). The patients were assessed twice: before and after the administration of the psycho-education program. **Results:** A significant difference in the total and subscales of self-concept, except for sexual self was observed post program intervention. Moreover, significant differences in the total and subscales of the PANSS, except for the mannerism and posturing, depression, motor retardation, and total general psychopathology subscales, were observed after the program compared to before intervention. **Conclusion:** Psycho-educational program about self-concept and knowledge of disorder can help significantly in decrease the symptoms of schizophrenia and improve self-concept among patients with schizophrenia.

Keywords: Self-concept, Schizophrenic, Psychoeducation, Positive & Negative syndrome scale.

Introduction

Schizophrenia is one of the most severe psychiatric diseases because it is chronic, recurring, and burdensome for affected individuals and their families **(Devaramane, Pai, & Vella, 2011).** Individuals with schizophrenia spectrum disorders have impairments in their sense of self **(Henriksen & Parnas, 2012; Hur, Kwon, Lee, & Park, 2014; Sass, 2014)**. Disturbances in the perception of self are thought to be central to the development of psychosis. Self-concept clarity is the extent to which one's beliefs about oneself are internally consistent, stable, and clear **(David C.et al., 2017)**. Disturbances of ego, self-concept and body-image have always been regarded as central in the psychopathology of schizophrenia **(Weckowicz & Sommer, 2018).** Phenomenologists have suggested that disturbances in the perception of self are among the first symptoms to develop in schizophrenia and these disturbances predict the development of psychosis over and above other clinical symptoms **(Nelson et al, 2012).** Self-concept is the totality of the individual's thoughts and feelings with reference to himself as an object **(Kucuker &Tekinarslan, 2015)**. It is one of the most analysed health-related psychological constructs. It also referred to the perceptions that the individual has about himself, who are based on his experiences with others, interaction with the environment, and the attributions that he makes of his own behaviour **(García et al, 2014).** Different study groups have developed various conceptualizations of self-disturbance, including misattribution of agency, disrupted feeling of body ownership, impaired self–other distinction, and disruptions in one's subjective self-experience **(Ferri et al., 2014)**. Good insight, which is the recognition of diverse components of illness, is paradoxically associated with both desirable impacts, such as enhanced adherence to medication and society functioning, and adverse consequences, such as rising rates of depression and reduced self-reported quality of life, of schizophrenia **(Lysaker, Pattison, Leonhardt, Phelps, & Vohs, 2018)**. For several reasons, conducting a study on self-disturbances in schizophrenia is vital. Some theorists have claimed it is crucial in the pathogenesis of schizophrenia, although self-disturbance is not listed

as a criterion in any classification of diseases **(Park & Nasrallah, 2014)**. Self-disturbance has been documented during the premorbid, prodromal, acute **(Nelson, Thompson, & Yung, 2012, Ebisch et al., 2014)**, and chronic phases of schizophrenia **(Moe & Docherty, 2014)**. Therefore, understanding self-disturbance may aid in understanding the entire disease. Finally, self-disturbances are linked to positive and negative symptoms. **David et al., (2017)** in their study suggests that people with schizophrenia have decreased self-concept clarity that is related to positive and negative symptoms. In addition to providing some evidence that people with schizophrenia have lower self-concept clarity than healthy controls, the studies revealed that self-concept clarity is negatively correlated with both positive and negative symptoms of schizophrenia. Future research could examine whether self-concept clarity plays a causal role in the development of positive and negative symptoms of schizophrenia. **Nordgaard & Parnas, (2014)** suggesting they may be crucial for understanding schizophrenia's underlying causes **(Klaunig et al., 2018)**. Clarity of self-concept shows the amount to which thoughts about the self are confidently and clearly defined, internally consistent, and stable across time. It is believed that disturbances in self-perception are crucial to the development of psychosis. A growing body of research suggests that schizophrenia-related incoherence or disorganization in the sense of self may prevent people from accurately perceiving reality and cause them to feel as though they have lost touch with themselves and have spent a lot of time wondering what kind of person they are **(Abou-Elmaaty, Shaheen, & Eweida, 2021)**.

During middle to late adolescence, the self-concept is formed consequently, adolescence is a crucial time. So, the development of schizophrenia frequently coincides with this time frame **(Lysaker et al., 2018).** This may affect schizophrenia patients' self-image. Schizophrenic people may modify their self-concept after hospitalization and experiencing symptoms **(Mosolov & Yaltonskaya, 2021).** Thus, a type of educational program, known as "psychoeducation," was developed, among others, to help individuals with schizophrenia better understand the disease, pharmacological therapy, and stress management, and encourage self-directed treatment. Many psychoeducation programs cover issues, such as the condition, its symptoms, pharmacological treatment, and coping strategies, and they are thought to help avoid recurrence by enhancing patient adherence **(Li-Qun et al 2022).** The Cochrane Database of Systematic Reviews has found that psychoeducation helps individuals with severe psychiatric disorders, such as schizophrenia, improve their mental health disorders, such as anxiety and depression, and social functioning and avoid recurrence and enhance drug adherence. Meanwhile, the effects of schizophrenia therapy and rehabilitation, with other goals, such as remission and mental well-being, also becoming more relevant, are no longer restricted to symptomatology and empirical adaptation state. The concept of well-being expresses patients' subjective perception of their physical, psychological, and social functioning. However, the effects of psycho-education on psychiatric symptoms have not been studied **(Wai Tong et al, 2019)**

Significance of study:

Few studies on the self-concept of individuals with schizophrenia, particularly their treatment, have so far been published. Therefore, the researchers were developed and implemented a psycho-education program on schizophrenic patients, which included the standard psychoeducation with an emphasis on providing information on the disease and a novel intervention.

Aim of study:

This study aimed to evaluate the effect of an educational program on self-concept of patients with schizophrenia.

Study Hypotheses:

Educational program will have a positive effect on the symptoms and self-concept of schizophrenic patients.

Operational definition:

Schizophrenia

Schizophrenia is a psychotic disorder associated with considerable disability and may affect all areas of life including personal, family, social, educational, and occupational functioning **(Feldmann et al., 2002).**

Self-concept

Self-concept is active, dynamic, and malleable. It can be influenced by social situations and even one's own motivation for seeking self-knowledge **(Abo El Maged, 2001).**

List of abbreviations: PANSS: the Positive and Negative Syndrome Scale.

Methods

Research design: A quasi-experimental study design was utilized.

Technical design:

Setting:

This study conducted at the psychiatry and neurology outpatient clinics of Assiut University Hospital.

Sampling:

A convenience sample included all patients were admitted to psychiatry and neurology outpatient clinics from January 2021 to the end of August 2021 chosen after the study was explained, consent to participate was acquired from each patients, and who met the criteria of the fifth edition of the Diagnostic

and Statistical Manual of Mental Disorders for schizophrenia were primarily recruited eight months after remission from an acute episode. The patients aged between 18 and 65 years and those who had at least one previous attack of schizophrenia included in this study. The exclusion criteria included patients with other psychiatric issues or substance misuse, a neurological illness, and patients who illiterate.

Tools of the study:

All participants filled up a sociodemographic data sheet, which included age, gender, level of education, occupation, and marital status. Then, the following tools were used:

Socioeconomic Assessment Scale: This scale was developed by in **Abd-El-Tawab (2004)** used to assess the socioeconomic status of the family. This tool consists of four dimensions (parent's degree of education, parents' occupation, family monthly income, and family lifestyle). The total score of the scale is the sum of the scores in each level; a score between 36 and 42 indicates a high socioeconomic class, a score between 21 and 26 indicates a low socioeconomic class, and a score ranging between 21 and 26 suggests a middling socioeconomic class.

The Offer Self-image Questionnaire (1982) Arabic version developed by Abo El-Magd, 2001): This scale was used to assess self-concept of schizophrenic patients. This questionnaire consists of eleven subscales address the five components of self-concept (psychological self, social self, sexual self, family self, and coping self). It consists of a series of statements that the patient was asked to confirm or disconfirm, that is, respond with yes or no for each statement. If the patient responded with yes, it was coded by 1, and if responded no, it was coded by 0. The score was reversed in the negative statement. The total score was divided into three levels (High self-concept ranges from 80 to 122; Moderate self-concept ranges from 39 to 79; and Low self-concept less than 39). The reliability of the previous scale was measured by Cronbach's coefficient α for assessing the internal consistency among these items, which indicated a high degree of consistency (R=0.7).

Positive and Negative Syndrome Scale (PANSS) (Kay, Fiszbein, & Opler, 1987).

It is a rating scale designed to assess the positive and negative symptoms of schizophrenia and the general psychopathology associated with it. The scale has 30 items. Each item is scored on a scale of 1 (no symptoms)–7 (very severe symptoms).

The content validity: Testing validity was done for reassuring clarifications of the tools by a panel of three experts in the specialty of psychiatry and psychiatric nursing specialties.

Administrative design:

The permission for conducting this study was obtained by an official letter was issued to the head manager of neuropsychiatric diseases hospital related to Assiut University Hospitals for seeking permission to carry out the study after explaining the purpose at the study.

Overview of the schizophrenia psychoeducation program

Each course comprised 10 participants, the sessions were held twice a week for 1 hour, for a total of eight sessions (seven instructional and one pre-assessment [first interview] sessions). Each session included a lecture with tools, such as videos and power point, notes, and group discussions.

Phases of educational program:

The researchers designed this study after a four-month evaluation of relevant materials. The program has two concepts. The first concept was implemented to educate individuals with schizophrenia on the definition, etiology, also signs and symptoms of schizophrenia. Meanwhile, the other concept was used to promote positive self-concept that include the definition, components, levels, and elements that influence the development of self-concept.

The program was developed in the following stages:

Assessment phase: (one and half months). This phase was designed to examine the understanding of patients about schizophrenia disorder and their degrees of self-concept.

Consideration of the program's content (two and half months)

The program strategy was covered in this phase (time and number of sessions and teaching method). The teaching location and facilities were evaluated for suitability. The program's teaching sessions were held in the recreation and activity hall. The researchers developed the educational program questionnaire after reviewing the literature, and it was revised by (two professors of psychiatry of the faculty of medicine, Assiut University). This questionnaire covered important knowledge about schizophrenia.

Content of the program:

Session 1: Introduction, definition of schizophrenia, and importance of the issue.
Session 2: The prevalence and etiology of schizophrenia.
Session 3: Symptoms and signs of schizophrenia.
Session 4: Treatment and prognosis of schizophrenia.
Session 5: Definition and components of self-concept.
Session 6: Levels of self-concept.
Session 7: Factors influencing self-concept development.

Putting the program into action

In the pre-assessment session, the researchers assigned schizophrenia disorder to individuals and interviewed individually to acquire sociodemographic

data and assess their self-concept (first interview followed by seven education sessions). At the next session, a report on the assignment outcomes was presented to determine how well they understood the prior session's themes. The staff provided the participants with constructive feedback and guidance on areas for growth when necessary. The researchers asked each participant to select the best response for each item of utilized questionnaires.

Evaluation of the program:

It was conducted at outpatients' clinics of neuropsychiatric diseases and neurosurgery hospital for patients after arrangement with the caregivers through phone for follow up, this phase was performed two times, first evaluation was after 3 months (post program) and the second evaluation follow-up was after six months from program implementation. Patients were evaluated by using the study tool II and tool III to measure the knowledge after implementation of the program. The model answers of questionnaire about definition; signs and symptoms; causes; and management of schizophrenic disorder was all of the above. The patients also evaluated by using same questionnaire to determine the effect of educational program on self-concept of schizophrenic patients.

Ethical considerations:

The study was ethically approved by the Institutional Review Board of the faculty of medicine, Assiut University. Informed consent was obtained from all participants. The participants were reassured of the confidentiality of their data, which were then released to the public anonymously and to the standards of the institution and/or national research committee. This study was conducted according to the Declaration of Helsinki and its subsequent amendments.

A pilot study:

The instruments and teaching materials were pilot tested involving 10 patients who were excluded from the main study to assess their acceptance, and necessary changes were made to better suit the materials to the Egyptian cultural background.

Statistical analysis:

The data were tabulated, and all statistical analyses were performed using Statistical Package for the Social Sciences, version 20. The groups under study were compared using the chi-square test, independent and paired *t*-tests, and analysis of variance. Differences with *p*-values of less than 0.05 were considered statistically significant.

Results:

Table (1): Socio demographic characteristics of the studied sample (No. 50)

Variables	Total	
	No.	%
Age		
• < 20 years	3	6 %
• 20-40 years	35	70 %
• 40-60 year	12	24 %
Mean ± SD of age	33.44 (11.60)	
Gender		
Males	37	74%
Females	13	26%
Martial statues		
• Single	30	60 %
• Married	17	34 %
• Divorce	3	6 %
• Widow	0	0
Occupation		
• Not working	24	48 %
• Workers	22	44 %
• Employee	4	8 %
Level of education		
• Primary education	17	34 %
• Secondary school	31	62 %
• University	2	4 %
Socioeconomic status class		
• Low	4	8 %
• Middle	40	80 %
• High	6	12 %
Mean (SD)	95.5 (23.07)	
ANOVA P-Value	0.0005	

Table (2): Effect of the educational program on schizophrenic disorder knowledge's pre & post program

Variable	Pre program N (%)	post program N (%)	X^2	P. value
Definition of schizophrenic disorder (All the above.)				
Yes	6(12%)	34(68%)	32.66	0.001*
No	44(88%)	16(32%)		
Signs & Symptoms of schizophrenic disorder (All of the above)				
Yes	13(26%)	26(52%)	7.1	0.013*
No	37(74%)	24(48%)		
Causes of schizophrenic disorder (All of the above)				
Yes	25% (50%)	31(62%)	1.46	0.31
No	25(50%)	19(38%)		
Complications of schizophrenic disorder (All of the above)				
Yes	19(38%)	22(44%)	3.25	0.1
No	31(62%)	28(56%)		
Management of schizophrenic disorder (All of the above)				
Yes	11(22%)	31(62%)	16.42	0.001*
No	39(78%)	19(38%)		

Table (3): Effect of the educational program on self- concept of schizophrenic disorder pre & post program

Variable	Pre & post program			
	Mean + SD		T	P
Psychological self	10.25+2.41	11.78+2.54	9.45	0.003*
Social self	10.39+2.83	12.02+3.09	16.73	0.001*
Sexual self	1.64+1.11	1.7+1.37	0.08	0.779
Family self	8.87+1.79	9.94+1.59	9.89	0.002*
Coping self	11.34+4.24	14.54+4.25	14.09	0.001*
Total self-concept	**41.79+9.91**	**50.08+10.56**	**16.36**	**0.001***

Table (4): Relation between levels of self-concept of schizophrenic disorder in pre & post the educational program.

Variable	Preprogram		Post program		X^2	P value
	No (N=50)	%	No (N=50)	%		
Low self-concept.	34	68	13	26	17.7	0.001*
Moderate self-concept.	16	32	37	74		
High self-concept.	0	0	0	0		

Table (5): Effect of the educational program on self- concept of schizophrenic disorder pre & post program according to PANAS of the study group:

Variables	Pre		Post		T value	P - value
	Mean	SD	Mean	SD		
1. Positive subscale						
1. Delusions	5.44	2.295	4.36	1.937	6.4	.013
2. Conceptual disorganization	5.55	1.903	4.46	1.675	9.15	.003
3. Hallucinatory behavior	5.52	2.295	4.12	1.796	11.42	.001
4. Excitement	5.25	1.99	4.18	1.58	8.91	.004
5. Grandiosity	4.39	2.38	3.30	1.84	6.58	.012
6. Suspiciousness	4.61	2.13	3.74	1.81	4.85	.03
7. Hostility	4.23	2.17	3.43	1.76	4.12	.04
Total positive subscale	34.41	11.477	27.93	9.55	9.6	.003

Variables	Pre		Post		T value	P - value
	Mean	SD	Mean	SD		
2. Negative subscale						
8. Blunted affect	4.69	2.053	3.80	1.756	6.5	.000
9. Emotional withdrawal	4.84	1.97	3.87	1.665	6.9	.010
10. Poor rapport	4.70	2.171	2.67	.71	39.32	.001
11. Passive/ apathetic social withdrawal	4.95	1.97	3.82	1.66	9.64	.002
12. Difficulty in abstract thinking	5.34	1.86	4.08	1.69	12.45	.001
13. Lack of spontaneity of flow at conversation	4.76	2.09	3.71	1.71	7.52	.007
14. Stereotyped thinking	4.05	2.42	3.24	1.91	3.43	.067
Total Negative subscale	33.10	12.25	26.20	10.04	9.48	.003
3. General psychopathology subscale						
15. Somatic concern	4.46	2.23	3.53	1.92	5.06	.027
16. Anxiety	5.17	1.98	4.06	1.79	8.7	.004
17. Guilt	5.18	1.98	3.98	1.93	9.35	.003
18. Tension	5.00	2.13	3.86	1.73	8.62	.004
19. Mannerisms and posturing	3.92	2.23	3.45	1.79	1.39	**.241**
20. Depression	3.65	2.301	2.96	1.73	2.87	**.09**
21. Motor retardation	3.69	2.29	3.24	1.85	1.16	**.28**
22. Uncooperativeness	4.82	1.62	3.94	1.505	7.97	.006
23. Unusual thought content	5.13	1.96	4.00	1.606	10.03	.002
24. Disorientation	4.39	2.35	3.80	1.75	2.07	**.15**
25. Poor attention	4.63	1.88	3.56	1.53	9.75	.002
26. Lack of judgment and insight	5.01	2.05	4.02	1.54	8.825	.004
27. Disturbance of volition	4.82	1.81	4.08	1.62	4.7	.03
28. Poor impulse Control	5.3	2.03	4.06	1.72	10.78	.001
29. Preoccupation	4.74	2.1	3.22	1.59	15.78	.001
30. Active social avoidance	5.22	1.61	3.56	1.303	32.15	.001
Total General psychopathology subscale	65.05	11.89	59.16	17.7	3.79	**.05**
Total PANAS Scale	142.7	40.55	112.74	32.36	16.67	.001

Demographic data

This study enrolled 50 patients with schizophrenia who approved to receive the psycho-education program. Most participants were males, married, unemployed, aged between 20 and 40 years, had secondary education, and were from the middle socioeconomic level **(Table 1).**

Effects of the educational program on knowledge on schizophrenia

A significant difference in the definition, sign and symptoms, and management was observed between before and after the psych-educational intervention **(Table 2).** Moreover, a significant improvement in all knowledge questions was observed after the administration of the psycho-education program. Before the psycho-education program, the worst response to knowledge questions regarding schizophrenia was definition (88%), followed by management (78%), signs and symptoms (74%), and complications of schizophrenia (62%). Meanwhile, the best response to knowledge questions regarding schizophrenia was definition (68%), followed by causes and management (62%).

Effects of the educational program on self-concept

A significant difference in the total and subscales of self-concept, except for sexual self, was observed between before and after the psychoeducation program **(Table 3).** Moreover, there is a significant improvement in the total and subscales of self-concept in the patients after the administration of the psycho-education program. The highest proportion of self-concept level was the low self-concept (68%) before the program, whereas the highest proportion of self-concept level was the moderate self-concept (74%) after the program. **(Table 4)**

Effects of the educational program on the PANSS

A significant difference in the total and subscales of the PANSS, except for the mannerism posturing, depression, motor retardation, and total general psychopathology subscales, was observed between before and after the psychoeducation program **(Table 5).** There was a significant improvement in the total and subscales of the PANSS in the patients after the administration of the psychoeducation program.

Discussion

Schizophrenia has long been a controversial mental disorder that affects how people feel, think and behave. Historically, schizophrenia was primarily conceptualized as "a disorder of the self, in which an individual has an incoherent, unclear, or otherwise disturbed sense of self" **(Berna et al., 2016 & Klaunig et al., 2018).** Despite the increased development of new anti-psychotic medication to reduce psychotic symptoms, people with schizophrenia still experience disabling residual symptoms, poor functioning and high risks of relapse **(Chien et al., 2017).** Interest in the processing of self-relevant information in people with schizophrenia has a long history in psychiatry and has increased in recent years **(Park & Nasalla, 2014).** Therefore, this study was designed to evaluate the effectiveness of an educational program on self-concept and symptoms of schizophrenic patients. Over one month, the program was developed and delivered to a limited sample of patients. The program included psychoeducation and training sessions for interactive communication skills. Studies have found that shorter programs resulted in higher compliance for a range of factors, such as practical and financial concerns (e.g., travel duration and expenses), employment responsibilities, and competitive social needs, all of which would lower the participation rates for long programs **(Rami et al., 2018).** This program was planned to be presented for one month. Current psycho-educational interventions to schizophrenic patients are evidenced to improve patients' illness-related knowledge, mental status and relapses rate. Numerous studies have suggested that more interaction sessions with a larger emphasis on behavioral components are beneficial **(Chien, et. al., 2016).** This study enrolled 50 patients with schizophrenia who approved to receive the psycho-education program. Most participants were males, married, unemployed, aged between 20 to 40 years, had secondary education, and were from the middle socioeconomic level.

Effects of the educational program on knowledge of patients about schizophrenic, the results found that there is significant difference and improvement in all knowledge questions after program intervention. The best response to knowledge questions regarding schizophrenia was definition followed by causes and management. Psycho-education is featured in most evidence-based therapies for patient with schizophrenia. It consists of increasing understanding of symptoms and identification the questions that may impact the outcome of treatment.

Bita et al., (2017) cited that the goal of psycho-education is to improve knowledge, attitudes toward treatment, and perceived need. Typically, psycho-education is included at the start of evidence-based treatment protocols. The program session included a lecture, group discussions, and the use of materials, such as DVDs, PowerPoint presentations, and handouts. A meta-analysis of randomized trials that provided psycho-educational therapy with minimal contact (e.g., printed leaflets or Internet content) has found that this was a straightforward and effective strategy to reach a significant number of individuals at a minimal cost. Patients with mental illnesses in Egypt, as in several impoverished nations, tend to attribute their psychiatric disorders to supernatural forces **(Rami et al., 2018)**. Similarly, **ElShafie et al. (2012)** have found improvements in knowledge among Egyptian individuals with schizophrenia after administering of psycho-educational program,. Psycho-educational interventions capitalize on psychological or social actions to produce a change in psychological, social, biological, and/or functional outcomes **(England, et al., 2015).**

Effects of the educational program on self-concept, the results discovered a significant difference in the total and subscales of the patients' self-concept, except for sexual self. Moreover, there is a significant improvement in the total and subscales of self-concept in the patients after the administration of the psycho-education program. The highest proportion of self-concept level was low self-concept before intervention, whereas the highest proportion of self-concept level was the moderate after the program intervention. The results of present study is consistent with the study of **El-Mohammady (2019)** who found that the highest percentages of patients` scores appeared in relation to lower ratings of all areas of self-concept (physical, moral, and personal, family, social and critical) and more than half of all studied patients had low level of overall self-concept. This finding may be due to psychiatric patient's failure to achieve lots of life requirements, for example most of them had low educational level, not satisfying work; patients may not attend their responsibilities and rules in society. Moreover, readmission to psychiatric health hospital may contribute to lack of self-confidence and increased level of self –stigma; patients may be also unable to meet their sexual needs (marriage) or to success in their marital life because they may be irresponsible or act maladaptive behaviours with partners or other people. All of the above may be explanations for the lower rating of all areas of self–concept. Also, this results are agreed with **Horvat (2015)** who carried out a study on Slovenia to examine, how different aspects of self-concept are connected with identity in people with schizophrenia and found that participants with schizophrenia had lower ratings of all areas of self-

concept (physical, moral, personal, family, social) and the total self-concept; schizophrenic patients indicated problems in defining the self and indicate a sense of alienation from or disappointment in their families and a lack of social skills. This result might have been accomplished by encouraging the participants to apply what they learned in the workshops in their daily lives and promoting self-control. Recent systematic reviews have suggested that psycho-education program for schizophrenia can enhance patients' knowledge of and coping with this illness, medication adherence and relapse prevention **(Xia, et al., 2011; & Zhao et al., 2015).**

Effects of the educational program on the PANSS, the study found a significant difference and improvement in the total and subscale of the PANSS, except for the mannerism, posturing, depression, motor retardation, and total general psychopathology subscales were improved poorly after program intervention. This can be explained in that patients emerging from psychotic states, acute depression was described. It usually appears after a patient has been discharged from the hospital and often goes unreported. When it manifests, the syndrome is usually phenomenologically stable, has a long duration, and may be resistant to all therapeutic approaches. Despite the risk of suicide and extended suffering, post-psychotic depression is a therapeutic area that is underserved. The program focused solely on schizophrenia knowledge, without considering depression. This might be related to that the lack of progress. **Shiod et al., (2016)** discovered that patients with more negative PANSS symptoms were less improved after implementing of psycho-education sessions. Self-concept through a good social adaptation can provide the power and source for mental health, and poor social adaptation will lead to the hidden trouble about the more psychological problems such as loneliness **(Zhu et al., 2016).** This perception affects their social status and leads to reduces self-concept and may contribute to loneliness **(Rokach & Sha'ked, 2013).** In the study of **Hiromi & Chizuru (2018)** cited that "I feel a sense of incongruity that is not myself" had a number of meaning units. Therefore, even if people with schizophrenia have an impaired ability to reflect on themselves, they could be conscious of themselves depending on the treatment approach.

Limitations

The present study could not compare the self-concept between inpatients and outpatients, and the finding might have affected outpatients' statements. Therefore, caution should be exercised when attempting to generalize the results of this study to all people with schizophrenia. Also, offering the psycho-educational program to patients only. So providing psycho-educational to patient and caregivers would be more useful in improving symptoms and preventing relapse.

Conclusion

In conclusion of this study, psycho-educational program about knowledge of schizophrenia can significantly decrease symptoms and the patients' total and subscales of self-concept improved significantly as a result of the program intervention.

Recommendation:

Continuous psycho-education is recommended as an integral part of a comprehensive treatment program for schizophrenic for patients and their caregivers to reduce psychiatric institutionalizations

Competing interests: The authors have no conflicts of interest to declare that are relevant to the content of this article.

Funding: None

Authors' contributions: Azza Abd El-Aziz *&* **Ola Aly** implement the program, analyzed and interpreted the data, and were the primary contributors to the writing of the manuscript. **Gellan & Hanaa** revised the data interpretation and read and approved the final version of the manuscript.

Acknowledgments:

The researchers expressed great gratitude and thank to all participants for sharing their personal experience of self-concept and receive psycho-education program. Also, sincere thanks to staff members in outpatient clinics whose time, effort and willingness to support and implemented this study.

References:

- **Abo El Maged, M. (2001):** Self concept and quality of life among adolescent girls. Unpublished Master thesis, Assiut University, Faculty of Nursing.
- **Abou-Elmaaty, G., Shaheen, S., & Eweida, R. (2021):** Relationship Between Self-Concept Clarity, and Positive and Negative Symptoms among Patients with Schizophrenia. Alexandria Scientific Nursing Journal, 23(2), 105-1114.
- **Aguglia, E., Pascolo-Fabrici, E., Bertossi, F., & Bassi, M. (2007):** Psychoeducational **intervention** and prevention of relapse among schizophrenic disorders in the Italian community psychiatric network. Clin Pract Epidemiol Ment Health, 3, 7. doi:https://doi.org/10.1186/1745-0179-3-7
- **Bechdolf, A., Knost, B., Kuntermann, C., Schiller, S., Klosterkötter, J., Hambrecht, M., & Pukrop, R. (2004):** A randomized comparison of group cognitive-behavioural therapy and group psychoeducation in patients with schizophrenia. Acta Psychiatr Scand, 110(1), 21-28.

doi:https://doi.org/10.1111/j.1600-0447.2004.00300.x

- **Bita Ghafoori; Dennis Fisher; Olga Korosteleva; and Madelyn Hong (2017):** A randomized, controlled, pilot study of a single session psycho-education treatment for urban, culturally diverse, trauma-exposed adults. Journal of nervous and mental disorders. June 204 (6) 421-430.
- **Berna, F., Göritz, A., Schröder, J., Coutelle, R., Danion, J., Cuervo-Lombard, C., & Moritz, S. (2016):** Self-Disorders in Individuals with Autistic Traits: Contribution of Reduced Autobiographical Reasoning Capacities.Journal of autism and developmental disorders, 46(8), 2587-2598.https://doi.org/10.1007/s10803-016-2797-2
- **Chien, W., Mui, J., Gray, R., & Cheung, E. (2016):** Adherence therapy versus routine psychiatric care for people with schizophrenia spectrum disorders: a randomized controlled trial. BMC psychiatry, 16 (1), 1-14.
- **Chien W, Bressington D., Yip A., Karatzias T. (2017):** An international multi-site, randomized controlled trial of a mindfulness-based psychoeducation program for people with schizophrenia. Psychol. Med., 47, pp. 2081-2096
- **Devaramane, V., Pai, N., & Vella, S. (2011):** The effect of a brief family intervention on primary carer's functioning and their schizophrenic relatives levels of psychopathology in India. Asian J Psychiatr, 4(3), 183-187. doi:https://doi.org/10.1016/j.ajp.2011.06.004
- **Donker, T., Griffiths, K., Cuijpers, P., & Christensen, H. (2009):** Psychoeducation for depression, anxiety and psychological distress: a meta-analysis. BMC Med, 7, 79. doi:https://doi.org/10.1186/1741-7015-7-79
- **David C. Cicero, Elizabeth A Martin, Theresa M. Becker, and John G. Kerns (2017):** Decrease self-concept clarity in people with schizophrenia. Journal of Nervous and Mental Disorders, February (1) 142-147.
- **Ebisch, S., Mantini, D., Northoff, G., Salone, A., De Berardis, D., Ferri, F., Gallese, V. (2014):** Altered brain long-range functional interactions underlying the link between aberrant self-experience and self-other relationship in first-episode schizophrenia. Schizophr Bull, 40(5), 1072-1082. doi:https://doi.org/10.1093/schbul/sbt153
- **ElShafie, A., Kamel, M., Criag, T., Effat, S., Omar, A., & El-Nahas, G. (2012):** An educational program for knowledge and attitude change in families of patients with schizophrenia. (MD thesis). Ain Shams University, Faculty of Medicine.
- **England MJ, Butler AS, & Gonzalez ML. (2015):** Psychosocial interventions for mental and substance use disorders: a framework for establishing evidence-based standards. Washington (DC): National Academies. Press (US).
- **El-Mohammady G. Mahmoud A, and El-Said S (2019):** Loneliness and self-concept among psychiatric patients in Port Said psychiatric health hospital. Scientific Journal of Nursing Vol.6, No.3, December 2019, Special Issue.
- **Feldmann, R., Hornung, W., Prein, B., Buchkremer, G., & Arolt, V. (2002):** Timing of psychoeducational psychotherapeutic interventions in schizophrenic patients. Eur Arch Psychiatry Clin Neurosci, 252(3), 115-119. doi:https://doi.org/10.1007/s00406-002-0369-2.
- **Ferri, F., Costantini, M., Salone, A., Di Iorio, G., Martinotti, G., Chiarelli, A., & Gallese, V. (2014):** Upcoming tactile events and body ownership in schizophrenia. Schizophr Res, 152(1), 51-57. doi:https://doi.org/10.1016/j.schres.2013.06.026
- **García, P., Marcos, L., Guillamón, A., García-Cantó, E., Pérez-Soto, J., Casas, A., & Lopez, P. (2014):** Physical fitness level and its relationship with self-concept in school children. Psychology, (5),17.
- **Henriksen, M., & Parnas, J. (2012):** Clinical manifestations of self-disorders and the Gestalt of schizophrenia. Schizophr Bull, 38(4), 657-660. doi:https://doi.org/10.1093/schbul/sbs033
- **Hur, J., Kwon, J., Lee, T., & Park, S. (2014):** The crisis of minimal self-awareness in schizophrenia: a meta-analytic review. Schizophr Res, 152(1), 58-64. doi:https://doi.org/10.1016/j.schres.2013.08.042
- **Hussein, H., Okasha, T., Fleiter, J., Peltzer, M., Steinbring, A., Wolver, W., & Peters, E. (2008):** Working with families of patients with schizophrenia: A rewarding alternative to classical community care in developing countries.
- **Horvat, B. (2015):** Identity in People with Schizophrenia and in those after Spinal Cord Injury. Journal of Psychology and Clinical Psychiatry, 2(5). doi: 10.15406/jpcpy.2015.02.00090.
- **Hiromi Sugawara and Chizuru Mori (2018):** The self-concept of person with chronic schizophrenia in Japan. Neuro Psycho-pharmacological Report. Sep; 38(3): 124–132.
- Karow, A., & Naber, D. (2002). Subjective well-being and quality of life under atypical antipsychotic treatment. Psychopharmacology (Berl), 162(1), 3-10. https://doi.org/10.1007/s00213-002-1052-z
- **Kay, S., Fiszbein, A., & Opler, L. (1987):** The positive and negative syndrome scale (PANSS) for schizophrenia. Schizophr Bull, 13(2), 261-276.
- **Klaunig, M., Trask, C., Neis, A., Cohn, J., Chen, X., Berglund, A., & Cicero, D. (2018):** Associations among domains of self-disturbance in

schizophrenia. Psychiatry Res, 267, 187-194. doi:https://doi.org/10.1016/j.psychres.2018.05.082

- **Kucuker, S. & Tekinarslan, I. (2015):** Comparison of the self-concept, social skills, problem behaviors, and loneliness levels of students with special needs in inclusive classrooms, educational sciences theory &practice, EDAM, 15(6), 1-16. doi: 10.12738/estp.2015.6.2331.
- **Li-Qun W, Wai Tong C, Lai K, & Thanos K (2022):** A randomized controlled trial of a mindfulness-based intervention program for people with schizophrenia: 6-month follow-up. Life and Social Sciences, Edinburgh Napier University, Edinburgh, Scotland, UK. Pages 3097-3110
- **Lysaker, P., Pattison, M., Leonhardt, B., Phelps, S., & Vohs, J. (2018):** Insight in schizophrenia spectrum disorders: relationship with behavior, mood and perceived quality of life, underlying causes and emerging treatments. World Psychiatry, 17(1), 12-23. doi:https://doi.org/10.1002/wps.20508
- **Moe, A., & Docherty, N. (2014):** Schizophrenia and the sense of self. Schizophr Bull, 40(1), 161-168. doi:https://doi.org/10.1093/schbul/sbt121
- **Mosolov, S., & Yaltonskaya, P. (2021):** Primary and Secondary Negative Symptoms in Schizophrenia. Front Psychiatry, 12, 766692. doi:https://doi.org/10.3389/fpsyt.2021.766692
- **Nelson, B., Thompson, A., & Yung, A. (2012):** Basic self-disturbance predicts psychosis onset in oithe ultra high risk for psychosis "prodromal" population. Schizophr Bull, 38(6), 1277-1287. d:https://doi.org/10.1093/schbul/sbs007
- **Nordgaard, J., & Parnas, J. (2014):** Self-disorders and the schizophrenia spectrum: a study of 100 first hospital admissions. Schizophr Bull, 40(6), 1300-1307. doi:https://doi.org/10.1093/schbul/sbt239
- **Park, S., & Nasrallah, H. A. (2014):** The varieties of anomalous self experiences in schizophrenia: splitting of the mind at a crossroad. Schizophr Res, 152(1), 1-4. doi:https://doi.org/10.1016/j.schres.2013.11.036
- **Pekkala, E., & Merinder, L. (2002):** Psychoeducation for schizophrenia. Cochrane Database Syst Rev(2), Cd002831. doi:https://doi.org/10.1002/14651858.CD002831
- **Park S, & Nasrallah H (2014):** The varieties of anomalous self-experiences in schizophrenia: splitting of the mind at a crossroad. Schizophric Research, 152:1–4.
- **Pooe, J., Sokudela, B., Roos, J., Motlana, L., Dlamini, N., & Snyman, M. (2010):** Testing the effectiveness of existing psycho-educational material (The Alliance Programme) for patients suffering from schizophrenia in the South African context. Afr J Psychiatry (Johannesbg), 13(4), 302-308. doi:https://doi.org/10.4314/ajpsy.v13i4.61881
- **Rami, H., Hussien, H., Rabie, M., Sabry, W., Missiry, M., & Ghamry, R. (2018):** Evaluating the effectiveness of a culturally adapted behavioral family psycho-educational program for Egyptian patients with schizophrenia. Transcult Psychiatry, 55(5), 601-622. doi:https://doi.org/10.1177/1363461518782520
- **Röhricht, F., & Priebe, S. (2006):** Effect of body-oriented psychological therapy on negative symptoms in schizophrenia: a randomized controlled trial. Psychol Med, 36(5), 669-678. doi:https://doi.org/10.1017/S0033291706007161
- **Rokach, A. & Sha'ked, A. (2013):** Together and Lonely: Loneliness in intimate relationships-causes and coping., New York. USA: Nova Science Publishers. ISBN: 978-1-62417-512-
- **Shiod, A., Tadaka, E., & Okochi, A. (2016):** Loneliness and related factors among people with schizophrenia in Japan: a cross-sectional study. Journal of Psychiatric and Mental Health Nursing, (23), 399–408.
- **Sass, L. (2014):** Self-disturbance and schizophrenia: structure, specificity, pathogenesis (Current issues, New directions). Schizophr Res, 152(1), 5-11. doi:https://doi.org/10.1016/j.schres.2013.05.017
- **Varcarolis EM (2012):** Manual of psychiatric nursing care planning. Translated by Abdolahian E, Soltanifar A, Sodmand P.; Tehran, Iran: AndisheRafie Publications [in Persian].
- **Xia, J., Merinder, L., & Belgamwar, M. (2011):** Psychoeducation for schizophrenia. Cochrane Database Syst Rev(6), Article Cd002831. doi:https://doi.org/10.1002/14651858.CD002831.pub2
- **Weckowicz T & Sommer R. (2018):** Body Image and Self-Concept in Schizophrenia, an experimental study. Journal of mental science, Published online by Cambridge University Press: 8 February.
- **Wai Tong C, Ho Yu C, Terry W, Annie L & JoJo C (2019):** Effectiveness of a mindfulness-based psycho-education group program for early-stage schizophrenia: An 18-month randomized controlled trial. Randomized Controlled Trial,Schizophrenic Research. 140-149.
- **Zygmunt, A., Olfson, M., Boyer, C., & Mechanic, D. (2002):** Interventions to improve medication adherence in schizophrenia. Am J Psychiatry, 159(10), 1653-1664. doi:https://doi.org/10.1176/appi.ajp.159.10.1653

Zhao S., Sampson S., M.B. Jayaram (2015) Psycho-education (brief) for people with serious mental illness. Cochrane Database Syst. Rev. (4), Article CD010823, 10.1002/14651858.CD010823.pub2

- **Zhu, J., Wang, X., Liu, Z., Liu, T., Wei, G., & Chen, X. (2016):** The Relationship between Self-Concept and Mental Health among Chinese College Students: The Mediating Effect of Social Adjusting. Open Journal of Social Sciences (4). 118-125. ISSN Online: 2327-5960.