

The Effect of Cognitive Behavioral Therapy Program on Insight and Nonadherence to Medication among Psychotic Patients in Psychiatric Hospital at Assiut Governorate

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Abstract: Cognitive-behavioral therapy for psychotic patients refers to a structured and time-limited approach to treat a variety of psychiatric disorders. The main goals are: to treat symptoms, to increase insight level and to reduce distress. **Aims of the study:** This study aimed to assess insight among psychotic patients, to determine the relationship between insight and nonadhering to medications and to study the effects of cognitive-behavioral therapy on the insight of psychotic patients. The study was carried out in the Psychiatric Mental Health Hospital, Ministry of Health at Assiut Governorate.. The study sample comprised 20 schizophrenic patients attending to psychiatric unit within a period of three months from October to December 2011, both sexes and agrees to participate in the study, aged from 18- 55 years for three months. Three tools were used for data collection, namely: Structured Questionnaire data sheet, Schedule for the Assessment of Insight (SAI- E) and Drug Attitude Inventory Scale (DAL- 30). **Results:** The main results yielded by the study proved that, 50% (10) of the studied group were single and 40 %(8) were married, the majority of studied group were illiterate, the highest percentage of insight was improved after application of cognitive – behavioral program (60%), and the highest percentage of adherence to medication were improved after application of program. **Conclusion:** cognitive – behavior therapy were effective in improvement level of insight and adherence to medication among psychotic patients. **Recommendation:** the study recommended to continually follow- up on the results of the study repeatedly reviewed the things of patients and the program should be simplified by using simpler language so as to be use to be with patient's with little education The number of the studied group most be increased. [Naglaa A. Mohamed and Nadia A. Abd El- Hameed. **The Effect of Cognitive Behavioral Therapy Program on Insight and Nonadherence to Medication among Psychotic Patients in Psychiatric Hospital at Assiut Governorate.** Life Sci J 2012; 9(2):435-441]. (ISSN: 1097-8135). <http://www.lifesciencesite.com>. 65

Key Words: Cognitive Behavioral Therapy, Insight, Nonadherence to Medication, Psychotic Patients.

1. Introduction

Insight is the awareness of self and acceptance of mental illness and the acceptance of need for treatment. Absence of insight is often described as a defense mechanism protecting the patient from the devastating realization of his or her illness ⁽¹⁾.

Baier and Urrage ⁽²⁾ define insight as patient's recognition and understanding of his conditions. While **Sims**, ⁽³⁾ describe insight as a profoundly significant human capacity for mental " seeing with the mind's eye " and glimpsing what's going on below the surface as well as in the minds of other people. **Ghami** ⁽⁴⁾ defined lack of insight as the inability to recognize that one possesses a mental illness of that one is experiencing psychopathological symptoms and lack of awareness of need for treatment and lack of recognition of the social consequences.

One of the main problems in the treatment of psychotic patients is their lack of insight and awareness ⁽⁵⁾. Insight is a complex and construct that has various dimensions that are not strongly correlated such as insights into illness, symptoms and for treatment ⁽⁶⁾. Insight on the part of both patients and care taker or family members is thought of as an important factor influencing adherence to medication and treatment of psychotic patients ⁽⁷⁾.

Poor compliance or adherence is an important health care problem, which can result in reduced efficacy or failure of the recommended intervention with detrimental effects on the patient's health ^(8, 9). Points out that noncompliance usually refer to patient's failure to follow health interventions as recommended by the health care provider. It also refers to the provider's failure to act according to practice guidelines or standards of care.

Uribe ⁽¹⁰⁾ reported that non compliant patients were more likely to be young, unmarried, and have longer disease duration and greater disease activity as assessed by the physician ⁽¹¹⁾ showed that about 1.3 million adults with disabilities did not take their medications as prescribed because of cost and that more than half reported health problems as a result .

A number of factors that contribute to non adherence in chronic illness have been identified to improve adherence and better health outcomes for patients' .**Pinikahana** ⁽¹²⁾ explore the complexity of compliance in schizophrenia into factors such as illness factors as insight, symptoms, duration of illness, substance abuse, adverse effects of medication. Psychological factors such as health beliefs and social support. Treatment factors including the patient – physician relationship.

Cognitive – behavioral therapy for psychotic patients refers to a structured and time – limited approach to treat a variety of psychiatric disorders. The main goals are: to treat symptoms, to increase insight level and to reduce distress⁽¹³⁾. So, mental health nurses play an important role for guided information and knowledge for patients about the nature of mental illness, the severity of their illness and the goals of medication in treatment to be insightful and improving their medication adherence.

Hypothesis:

Insight level of psychotic patients who received cognitive behavioral therapy program increase than before the participation of the study.

Aim of the study:

To assess insight among psychotic patients, to determine the relationship between insight and nonadhering to medications, and to study the effects of cognitive–behavioral therapy on the insight of psychotic patients.

2. Subjects and Methods:

Research Design:

The design followed for this study is a Quesi Experimental study design.

Setting:

The study was conducted at the Psychiatric Mental Health Hospital, Ministry of Health at Assiut Governorate. The hospital is serving Assiut City and all Upper Egypt governorates.

Subjects:

Subjects of the study comprised 20 schizophrenic patients attending to psychiatric unit within a Period of three months from October to December 2011 both sexes and agree to participate in the study, aged from 18- 55 years for three months.

Inclusion criteria:

1. Patients was no danger to themselves or others (violence , suicide)
2. They were able to communicate.

Exclusion criteria:

Patients with mental retardation and drug addiction.

Tools of the study:

Three tools were used for data collection:

1. Structured Questionnaire data sheet:

This questionnaire schedule developed by the researchers, to assess demographic characteristics of the subjects; e.g., age, sex, residence, occupation, level of education, marital status, and diagnosis.

2. Drug Attitude Inventory Scale (DAL- 30):

This scale developed by **Hogen et al.**⁽¹⁴⁾. This scale will be used to measure subjective response to medication in an effort to obtain a more complete

understanding of factors influencing medication compliance in psychiatric patients. The scale has 15 items that will be scored as true and 15 items that will be scored as false in the case of a fully compliant (positive subjective response). A correct answer to these items will be scored as plus one. An incorrect answer will be scored as minus one. The final score is the sum of the total of pluses and minus scores. A positive total score mean a positive subjective response (adhering). A negative total score means a negative subjective response (none adhering). This scale translated into Arabic and tested for validity and reliability by **Khalil and El – Hosany**⁽¹⁵⁾.

3. Schedule for the Assessment of Insight (SAI- E):

This scale developed by **Kemp and David**,⁽¹⁶⁾. This scale consists of 3 items scored on a Likert scale of 0 (no insight) to 4 (full insight). The SAI assesses insight into three separate dimensions of insight: treatment compliance composed items no. 1, 2,3,4,5 and6 (0 to 2), recognition of illness composed of items no. 7 and 8 (0to 4), and relabeling of psychotic phenomena of item no. 9 (0 to 4). the total score measured by summed of three scored dimensions ,the patient has no insight when the total score ranged from 0 to 12 grades , while the patient have full or good insight when the total score ranged from 13 to 24 grades .

Cognitive – Behavior Therapy Program

Developed by the researcher to test the effectiveness of cognitive behavioral therapy program among psychotic patients. About five different methods of cognitive behavioral therapy as identifying automatic ideas, self monitoring, imagination, distraction technique, and idea's termination technique distributed on "4" sessions "2" sessions per week, each session ranged from 30 to 45 minutes.

The Procedure:

The investigator will interview the psychotic patients at Psychiatric & Mental Health Hospital at Assiut Governorate. All ethical considerations will be clarified to each patient before explanation of the nature of the study. The investigator will ask the patient about their sociodemographic data by using the first questionnaire to determine the sociodemographic classes for these patients.

The second step applied tool number 2 (**DAL- 30**) will be applied for each patient to measure subjective response to medication among those patients.

The third step applied tool number3 (**SAI- E**) will be applied for the same patients to assess the patient's insight. Then the cognitive – behavioral therapy program will be applied for each patient. Implementation of cognitive – behavioral therapy sessions includes: an orientation meeting was held with

patients to explain the aim of the cognitive – behavioral therapy sessions, the cognitive – behavioral therapy sessions were held for two days / week for a period of three weeks , every session was from 30 to 45 minutes, cognitive – behavior therapy sessions included different types of activities :

- 1- identifying automatic ideas
- 2- self monitoring
- 3- imagination
- 4- distraction technique
- 5- idea's termination technique

The program was applied for psychotic patients (schizophrenic) in Assiut Governorate, Psychiatric Mental Health Hospital, Ministry of Health, each patient interviewed individually. Firstly pre- test should be applied for each patient before applied the program and then immediately post- program implementation was evaluated to test their improvement of insight and adherence to medication. Data were collected in the period from October to December 2011

Methods of data collection:

- 1) Permission was obtained from the dean of the faculty of nursing –Assiut University directed to the director of the Psychiatric Mental Health Hospital, Ministry of Health, at Assiut Governorate.
- 2) The aim of the study was explained to patients before starting data collection. Patients were informed about what was done for them.
- 3) Each patient has been interviewed once on an individual basis at psychiatric unit.
- 4) Consent (verbal agreement) was taken from the patients who were reassured about the confidentiality of the obtained information to avoid misunderstanding and providing privacy for them.
- 5) The data were collected by the researchers during the period of three months from the first of October to the end of December 2011.
- 6) The patient was interviewed for about 30 – 45 minutes at one time.

Statistical analysis

The data were computerized and verified using the SPSS (statistic among package for social science) version 16 to perform tabulation and statistical analysis. Qualitative variables were described in frequency and percentages, statistical significance was considered at p – value <0.05 .

3. Results:

Results of the present study showed that:

In the present study, found that equal number between study sample according to age <35 , ≥ 35 and the range of Mean \pm SD was 33.45 ± 8.51 (17- 49 years).

Equal number between male & female as regarding to sex. Regarding to marital status 50% (10) of the studied group were single and 40 % (8) were married, while small number of them were divorced & widow (10%).

According to level of education the majority of studied group were illiterate, primary, preparatory and secondary education, (20%, 30%, 20%, 20%) respectively .As regard occupation about 25% of the studied group were not work, While 30% of them were worker & housewife. Nearly $\frac{3}{4}$ of the studied group were living in rural area, while 30% of them were living in urban area (**Table 1**).

Regarding to the level of insight among the studied group, the highest percentage of insight was improved after application of cognitive – behavioral program (60%). (**Table 2**).

Table (3) shows adherence and non – adherence to medication among the studied group, the highest percentage of adherence to medication were improved after application of program.

Regarding to the relation between insight and adherence to medication among the studied group, there were statistically significant differences between insight and adherence to medication were improved after implementation of cognitive – behavioral program (**Table 4**)

In relation between demographic characteristics of the studied group and insight , the highest mean were more in males, single, who were had basic education and lived in rural areas(**Table 5**)

In relation between sociodemographic data of the studied group and patient's attitude toward medication, there was no statistical significant difference between sociodemographic data and medication, regarding to age, marital status, level of education, and urban group (**Table 6**)

Table (7) shows the correlation between insight and patient's attitude toward medication, reported that there was no correlation between insight and medication before or after program.

4. Discussion:

The value of insight as a predictor of clinical outcome in patients with psychotic disorders has recently drawn increased attention, those who believe that insight influences treatment outcome and also improve insight through the use of psycho-educational program ⁽¹⁷⁾. Non-adherence is strongly associated with an increased risk of relapse ⁽¹⁸⁾. Many patients with psychosis are unaware of their disorder and symptoms. Moreover, insight is a clinical modulator of compliance with treatment and a good indicator of prognosis ⁽¹⁹⁾.

Table (1): General characteristics of the studied group (no.20)

Items	No. (n= 20)	%
Age: (years)		
< 35	10	50.0
≥ 35	10	50.0
Mean ± SD (Range)	33.45 ± 8.51 (17 – 49)	
Sex:		
Male	10	50.0
Female	10	50.0
Marital status:		
Single	10	50.0
Married	8	40.0
Divorced	1	5.0
Widow	1	5.0
Level of education:		
Illiterate	4	20.0
Read and write	1	5.0
Primary	6	30.0
Preparatory	4	20.0
Secondary	4	20.0
University	1	5.0
Occupation:		
Not work	5	25.0
Worker	6	30.0
Farmer	3	15.0
Housewife	6	30.0
Residence:		
Urban	6	30.0
Rural	14	70.0

Table (2): level of Insight before and after implementation of cognitive behavioral therapy program among the studied group (no.20)

Items	Insight			
	Before (n= 20)		After (n= 20)	
	No.	%	No.	%
Poor	12	60.0	8	40.0
Good	8	40.0	12	60.0
P-value	0.206			

Chi-square test

Table (3): Adherence to medication before and after implementation of cognitive behavioral therapy program among the studied group (no.20)

Items	Medication			
	Before (n= 20)		After (n= 20)	
	No.	%	No.	%
Non-adherence	8	40.0	3	15.0
Adherence	12	60.0	17	85.0
P-value	0.077			

Chi-square test

Table (4): Relation between insight and adherence to medication before and after implementation of cognitive behavioral therapy program among the studied group

Items	Before (n= 20)	After (n= 20)	P-value
Insight:			0.010*
Mean ± SD	10.40 ± 5.90	12.80 ± 5.61	
Range	0 – 19	2 – 20	
Medication:			0.000*
Mean ± SD	3.65 ± 9.51	9.15 ± 8.57	
Range	-15 – 20	-5 – 22	

Wilcoxon Signed Ranks Test *
Statistical significant difference ($P < 0.05$)**Table (5): Relation between demographic characteristics and insight among the studied group**

Items	Mean ± SD	Range	P-value
Age: (years)			0.909
< 35	10.40 ± 6.50	0 – 19	
≥ 35	10.40 ± 5.58	3 – 18	
Sex:			0.130
Male	12.30 ± 6.40	0 – 19	
Female	8.50 ± 4.91	3 – 17	
Marital status:			0.472
Single	11.30 ± 5.74	0 – 19	
Married	9.50 ± 6.22	3 – 18	
Level of education:			0.401•
Illiterate/ read & write	7.60 ± 5.73	3 – 17	
Basic education	12.10 ± 4.63	3 – 18	
Secondary or higher	9.80 ± 8.17	0 – 19	
Residence:			0.301
Urban	8.33 ± 7.31	0 – 17	
Rural	11.29 ± 5.24	3 – 19	

Mann-Whitney Test •Kruskal-Wallis Test

Table (6): Relation between demographic characteristics and adherence to medication among the studied group

Items	Mean SD	±	Range	P-value
Age: (years)				
< 35	1.90 9.94	±	-15 – 14	0.382
≥ 35	5.40 9.24	±	-6 – 20	
Sex:				
Male	4.10 10.75	±	-15 – 16	0.790
Female	3.20 8.65	±	-6 – 20	
Marital status:				
Single	1.70 9.45	±	-15 – 16	0.518
Married	5.60 9.65	±	-6 – 20	
Level of education:				
Illiterate/ read & write	6.00 10.95	±	-6 – 20	0.965
Basic education	3.20 8.07	±	-6 – 16	
Secondary or higher	2.20 12.38	±	-15 – 14	
Residence:				
Urban	5.67 8.71	±	-4 – 14	0.561
Rural	2.79 10.02	±	-15 – 20	

Mann-Whitney Test

•Kruskal-Wallis Test

Table (7): Correlation between insight and adherence to medication before and after implementation of cognitive behavioral therapy program among the studied group

Items	Insight			
	Before		After	
	r-value	P-value	r-value	P-value
Medication	0.008	0.972	- 0.119	0.617

According to demographic characteristics of the studied groups, it was found that most of the studied sample was 33.45 ± 8.51 (17- 49 years) years. 50% of the present study was single, and 45% of them had basic education. These findings may be related to stigma of psychotic patients feeling not accepted from society, or schizophrenic patient unapplied to carry out responsibility of family or may be due to delusion & hallucination and lack of emotion. It was consistent with **Williams and Collins** ⁽²⁰⁾ who reported that the Mean \pm SD of the participants were 41.1 ± 8.4 years. This may be

related to schizophrenic disorder appear among adulthood and early years of development and the study contain 58 people 25 of them with a diagnoses of schizophrenia, and 33 people with a diagnosis of bipolar disorder, 31 of them were men and 27 of them were women, and the most of the subjects were single or never to married (67%) and unemployed. In the study of **Jaime** ⁽²¹⁾ found that patients mean age was 45 years with arrange between 25 and 63 and the majority of patients was males (60%). **Fred**, ⁽²²⁾ stated that non – adherent patients were more likely to be young, unmarried and lived in rural areas. Also in the study of **Uribe**, ⁽¹⁰⁾ reported that non-compliant patients were more likely to be young and unmarried.

The present study showed that effectiveness of cognitive- behavioral therapy on the awareness of the illness of patients who entered the program as being higher than pre-program levels, which supports the hypothesis and consistent with the study of **Garety and Kuipers** ⁽²³⁾ who reported that during participated six schizophrenic patients in the program at Jitavj Khonkaen Rajanakarindra Hospital, the program emphasizing the improvement of patients insight. Also, in the results of **Turkington and Turner**, ⁽²⁴⁾ that studied and evaluated the result of cognitive – behavioral therapy in an experimental group of schizophrenic patients, found that patients who received the brief cognitive – behavioral therapy showed increased insight. These results agree with the present study that the level of insight was improved after application of cognitive – behavioral therapy.

Pinikahana et al., ⁽¹²⁾ explore the complexity of compliance in schizophrenic patients, they review socio-demographic characteristics of these patients, including age, gender, socioeconomic status, illness factors such as insight, symptoms, duration of illness .e.t.c. the authors conclude that these factors provide important information to guide the caregiver (physician and mental health nurse) in facilitating patient compliance. The present study found that there was no statistical significant difference between sociodemographic data and attitude of patients of studied group toward medication. The present study was supported by **Dooulout et al.**, ⁽²⁵⁾ who found that the association between measures of medication adherence was not modified after adjustment of demographic characteristics (age, gender, educational level, occupational status and marital status). That was related to stigma of mental illness and psychotropic medication or lack of education and importance of medication and poor insight. Also in the study of **McPherson et al.**, ⁽²⁶⁾ during discuss non-compliance with medical follow – up after pediatric intensive care, found that no socioeconomic or demographic risk factors were identified for non-compliant patients.

The present study reported that there was no correlation between insight and adherence of medication

before and after program. This may be related to small sample or low level of education or stigma a round psychotic disorder and medication or attitude of nursing staff and lack of social support system. This finding consistent with the study of **Cheng**,⁽¹⁸⁾ who found that there was no significant correlation was found between insight and medication adherence cross- sectionally or prospectively among the subjects with schizophrenia. While **Lincoln et al.**,⁽²⁷⁾ who reported that fifteen cross - sectional studies fulfilled there selection criteria, ninety of them found there was an association between insight and adherence to medication and the majority of the studies speak fore a clear association of insight and treatment adherence.

Conclusion:

Based upon the study results, it is concluded that the majority of the studied sample were, single, had basic education and lived in rural areas and the cognitive – behavioral therapy were effective in improving patient's insight and adherence to medication.

Recommendation:

In the light of the study findings, it is recommended to:

- 1- Continually follow- up on the results of the study repeatedly reviewed the things of patients.
- 2- During application of program , many patients were difficult understand some activities (procedures) as identifying automatic ideas and imagination , so the program should be simplified by using simpler language so as to be use to be with patient's with little education.
- 3- Increase the period of time during application of program.
- 4- Applied of the study with large number of participant

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