

Relationship Between Positive Symptoms of Schizophrenia And Level of Anxiety Among Schizophrenic Patients

(1) Hoda abd Elmoaty Mahmoud Arafa: Demonstrator of psychiatric and mental health nursing Benha University, (2) Maaly Ibraheim elmalky: Assistant professor of psychiatric nursing Menufia University and (3) Mawaheb Mahmoud Zaki : Lecturer of psychiatric and mental health nursing Benha University

ABSTRACT

Background: Positive symptoms reflect an excess or distortion of normal functions. Anxiety symptoms that are commonly intertwined with more positive symptoms such as delusions and hallucination can complicate the course of schizophrenia. The purpose of this study was to assess relationship between positive symptoms of schizophrenia and level of anxiety among schizophrenic patients .A descriptive correlational design was utilized to achieve the purpose of this study. The study was conducted at Psychiatric Mental Health Hospital in Banha City which is affiliated to the Ministry of Health. A purposive sample of 100 patients of schizophrenia who were hospitalized at the above mentioned setting were selected. *Three instruments were used:* First instrument: A structured interviewing questionnaire consisting of two parts: to assess Personal characteristics and clinical data of schizophrenic patients. Second instrument:: positive symptoms Scale to assess positive symptoms of schizophrenia .Third instrument: :Anxiety scale to assess level of anxiety .*The Results of this study revealed that* majority of (87%) had positive symptoms of schizophrenia and 60% had severe anxiety . There is a positive significant correlation between positive symptoms of schizophrenia and the level of anxiety. **Conclusion:** There is a strong positive correlation between positive symptoms of Schizophrenia and the level of anxiety among patients having schizophrenia. Recommendation: Based on this result it is that aims to reduce symptoms of schizophrenia should be provided and should be provided to reduce the level of anxiety and stress management should be provided to patients having schizophrenia to decrease the positive symptoms of schizophrenia.

Key words: Schizophrenia, positive symptoms, Level of anxiety

Introduction

Schizophrenia is a chronic mental disorder characterized by delusions, hallucinations, disorganized speech and behavior, and other symptoms that cause social or occupational dysfunction. It is a mental illness that interferes with a person's ability to think clearly, manage emotions, make decisions and relate to others. About one-half of people living with schizophrenia do not have awareness that their symptoms are part of an illness process **Elattar,(2015)**.

Schizophrenia affecting about 7 per thousand of the adult population; the prevalence is high due to chronicity, which affects about 65 million people worldwide **WHO, (2015)**. Anxiety symptoms are highly prevalent in

schizophrenia and occur in up to 65 % of patients, Co-occurring anxiety in schizophrenia may have a negative impact on the course and prognosis of schizophrenia **Karpov, et al.,(2016)**. Level of anxiety is associated with clinical symptomatology and in patients with schizophrenia. Higher level of anxiety is connected to more severe hallucinations, As far as positive symptoms of schizophrenia are concerned, panic anxiety is related to psychotic positive symptoms **Vrbova , et al.,(2013)**.

Positive symptoms are active in nature and give the person with schizophrenia unusual , often bizarre appearance . They include : *Hallucination* ; false sensory perception or perceptual experience that do not exist in reality , *Delusion*; fixed false beliefs that have no

basis in reality ,*Echopraxia* ; limitation of the movements and gestures of another person whom the client is observing , *Flight of ideas*; continuous flow of verbalization in which the person jumps rapidly from one topic to another , *Perseveration* ; persistent adherence to a single idea or topic , verbal repetition of a sentence , word or phrase resisting attempts to change the topic , *Associative Looseness* ; fragmented or poorly related thoughts and ideas **Hogan, (2013)**.

The severity of psychotic experience have demonstrated that anxiety is related to levels of paranoia , delusion and can trigger acute augmentation in auditory hallucinations. Social anxiety symptoms were related to positive symptoms and bizarre behavior and that panic and social anxiety were related to levels of suspiciousness and paranoia **Hartley, et al.,(2013)**.

Caring of schizophrenic patients requires that nurses have a great capacity for understanding and empathy and non- stigmatization of mental illness, so that an effective and efficient therapeutic relationship can be established. The nurse must be able to see that beyond the symptoms, there is a person in terrible mental suffering, despair, hopelessness and incomprehension, and may even entertain suicidal thoughts. Nurses must be able to understand that these people live in a frightening unreal world and has difficulty distinguishing reality from delusions and hallucinations, because everything seems real to them. For all of these reasons, it takes a great deal of hard work for nurses to understand the person with schizophrenia who is suffering from a mental pathology and that it is essential to learn to live with symptoms and adhere to therapy to prevent relapse **De Pinho , et al ., (2017)** .

Operational Definitions

Anxiety is used to describe feelings of uncertainty, uneasiness, apprehension, or tension that a person

experiences in response to an unknown object or situation. It will be assessed using instrument to obtained mean score of anxiety as a responds to various stressful situations.

Positive symptoms of schizophrenia are characterized include hallucinations and thought-process disorder. They will be assessed using instrument to obtained mean score of Positive Symptoms of schizophrenia.

Methods

Purpose of the Study:

The purpose of this study was to examine the relationship between positive symptoms of schizophrenia and level of anxiety among schizophrenic patients.

Research Questions:

1. What are the positive symptoms of schizophrenia?
2. What is the level of anxiety among schizophrenic patients?
3. What is the relation between positive symptoms of schizophrenia and level of anxiety among schizophrenic patient?

Research design:

A descriptive correlational design was utilized to achieve the purpose of the study.

Setting:

This study was conducted at Psychiatric Mental Health Hospital in Banha City, which is affiliated to the General Secretariat. It has 7 departments (4 for males, 1 female, 1 Addiction department and 1 outpatient clinic), with a capacity of 201 beds. The hospital provides care for patients diagnosed with acute and chronic mental illness who need institutional care.

Sampling:

Sample size:

Based on past review of literature (Dombrowski, et al., 2014). It was found that the prevalence of anxiety and related

disorder diagnosis in schizophrenia was found to be 14.9 %, the sample size has been calculated using the following equation $(Z n = p^2 * q) / D^2$ at 80% power with a significance level of 5% it is estimated that the sample size was 100 patients.

Sample technique:

A purposive sample of 100 patients having schizophrenia from the above-mentioned setting were included.

Inclusion criteria:

- a- All patients should have schizophrenia.
- b- Able to communicate.

Instruments:

The instruments that were used for data collection included the following:

Instrument I: *Characteristics of the sample structured interview questionnaire developed by the researcher and consists of two parts:*

Part one: *Personal data questionnaire:* It was developed to collect data about the patient's characteristics such as Age, sex, marital status, level of education, occupation and residence.

Part two: *clinical data questionnaire:* It was developed to collect data about patients' clinical characteristics such as Age at onset of disease, date of last admission, number of previous admission, manner of admission, Insight, family history for mental illness.

Instrument II: Positive symptoms scale (SAPS)

The positive symptoms Scale was originally developed by **Andreasen, (2011)**. The scale was used to assess positive symptoms of schizophrenia; it was translated into Arabic by the researcher. The scale comprises 34 items and 4 subscale (hallucinations,

delusions, bizarre behavior, positive formal thought disorder). The first subscale is "Hallucination consists of 6 items". The second subscale is Delusion. It consists of 12 items". The third subscale is "Bizarre behavior consists of 4 items". The fourth subscale "Positive formal thought disorder. It consists of 8 items". It is a likert scale from No = 0, Mild = 1, Moderate = 2, Severe = 3. The minimal score = 0 and the maximum score = 90

Scoring system of positive symptoms Scale was categorized as follows:

- ❖ Non < 45 %
- ❖ Mild 45-58%
- ❖ Moderate 58 -72%
- ❖ Severe > 72%

Instrument III: Anxiety Scale

This instrument was developed by **Fahimey&Ghally, (2013)**. It was used to assess the level of anxiety, the scale comprises 50 items, (Note : 49 item negative but 1 item positive it is " I wish would be as happy as others." It is 2 point from Yes (1), No (0), the minimal score = 0 and the maximum score = 50.

Scoring system of Anxiety Scale was categorized as follows :

- ❖ No anxiety < 50%
- ❖ Mild anxiety 50 % - 64%
- ❖ Moderate anxiety 65% - 74%
- ❖ Severe anxiety >75%

Ethical consideration:

Approval of the Faculty of Nursing Research committee was obtained. The subjects who agreed to participate in the study were assured about confidentiality and anonymity of the study. They were informed that they can withdrawal from the study at any time. Acceptance to participant in the study was taken through written consent.

Content Validity:

Validity of tools was done by a group of five experts (Three professor in psychiatric nursing and two psychiatrists) to check for the relevancy, clarity, comprehensiveness and applicability of the questions. According to their opinions, modifications were done and the final form was developed. The modification were (modify some words to give the right meaning of the phrase and add some examples to interpreted some phrases.

Reliability of the tools:

The internal consistency of the instruments were checked by test – retest reliability, Reliability for tools one and two was strongly reliable at $r = 0.087$.

Pilot study:

A pilot study was conducted on 10 patients of schizophrenia in the Psychiatric Mental Health Hospital who met the inclusion criteria in order to test clarity of items, applicability of the instruments and estimate the time needed for data collection. .On the based, of the pilot results some modification in the instruments was done. Subjects included in the pilot study were excluded from the main study sample to assure the stability of the results.

Procedure:

Before data collection an official letter was addressed from the Faculty of Nursing/Benha University to the director of Psychiatric and Mental Health Hospital at the previously mentioned setting requesting their cooperation and permission for conducting the study. All of the authorized personnel provided the needed information about the purpose and importance of the study.

The researcher introduced herself to the patients. Then explaining the purpose of the study was done for every one. Consent was taken from every one of them before data collection. An individual interview to collect the necessary data. All patients who were included in the sample were individually

interviewed. The researcher collect the data from the patients in the morning shift two days in a week, two hour per day. Nearly data was collected from 8-9 patients / week, each interview lasted nearly 30 minutes for each patient, for 3 months. Data were collected throughout the period from beginning of February 2017 to April 2017.

Statistical analysis:

Data entry and statistical analysis were done using the statistical package for social sciences (SPSS version 20).Data were presented using descriptive statistics in the form of number and percentages , mean , standard deviation . Qualitative variables were compared using the chi- square test and correlation coefficient was used to measure the direction and strength of the correlation between variables . A statistical significant difference was considered if $p \leq .05$. A highly statistical significant difference was considered if $p \leq .01$.

Difficulties of the study:

No limitation

Results:

Figure (1) Represent that the majority of studied sample (87.0%) have positive symptoms of schizophrenia.

Figure (2) shows that less than half (43.0 %) of studied sample had moderate positive symptoms of schizophrenia and nearly to one-third (28.0%) had severe positive symptoms of schizophrenia.

Figure (3) show that, near to two thirds (60.0%) of studied patients had severe anxiety while only (6.6%) of them had mild anxiety.

Table (1): reveals that, there is no statistical significant difference between the level of anxiety of patients with schizophrenia who have different clinical characteristics.

Table (2): reveals that, there is no statistical significant difference between

Relationship Between Positive Symptoms of Schizophrenia And Level of Anxiety Among Schizophrenic Patients

mean score of positive symptoms who have different clinical characteristics except the age of onset of the disease $p \leq .05$.

Table (3): reveals that there is a positive highly statistical significant correlation between positive symptoms of schizophrenia and level of anxiety among schizophrenic patients at $p < 0.001^*$.

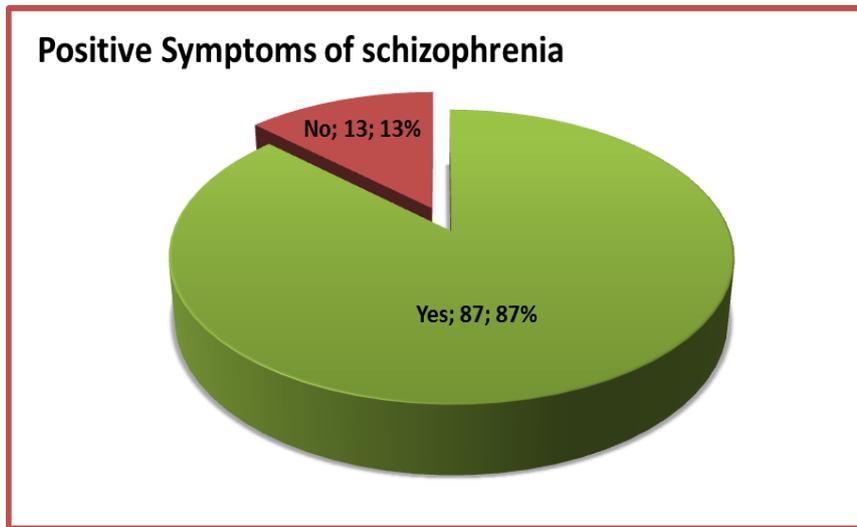


Figure (1) Distribution of patients according to their the positive symptoms of schizophrenia

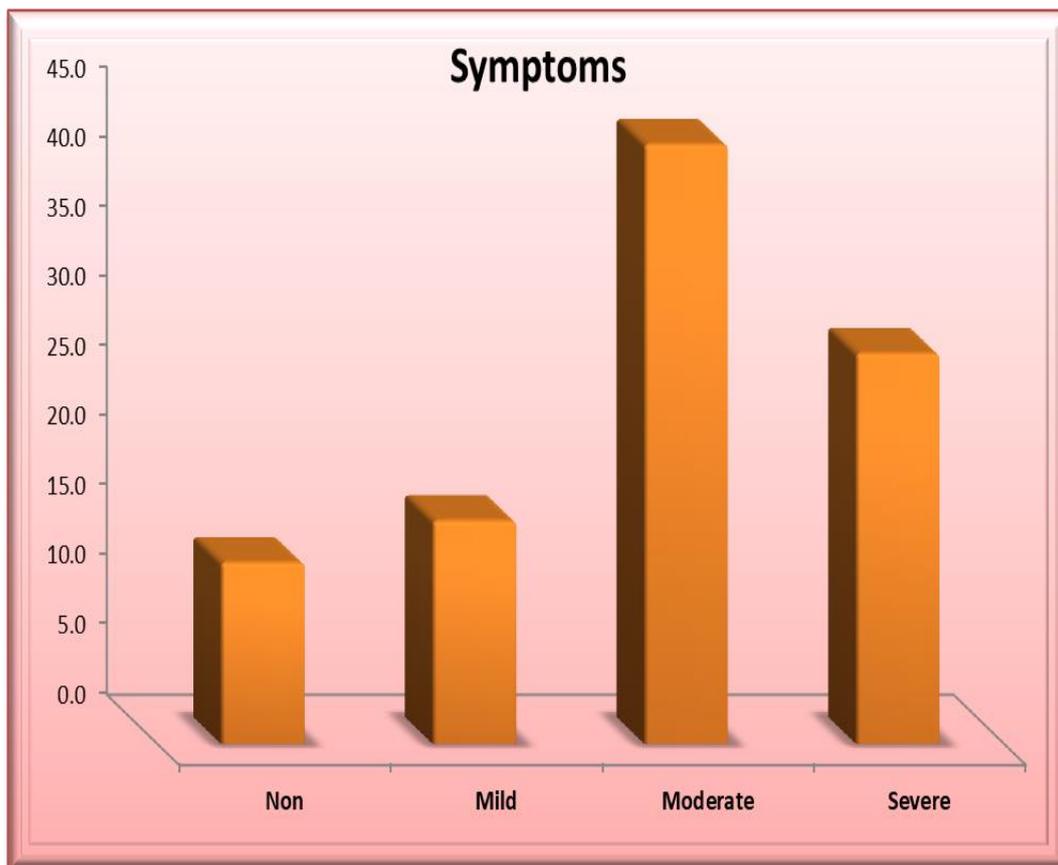


Figure (2) Distribution of patients of schizophrenia according to their severity of positive symptoms.

Relationship Between Positive Symptoms of Schizophrenia And Level of Anxiety Among Schizophrenic Patients

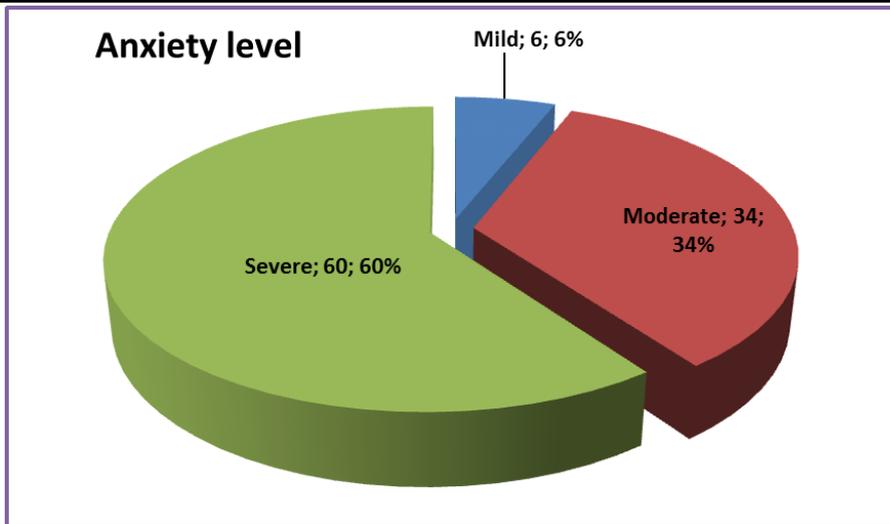


Figure (3): Distribution of patients with schizophrenia according to their of the level of anxiety.

Table (1): Level of anxiety of patients with schizophrenia who have different clinical characteristics.

Clinical characteristics		N	Anxiety			ANOVA or T-test	
			Mean	±	SD	Test value	P-value
Age at the onset of disease	15 < 25	33	36.182	±	10.333	1.599	0.195
	25 < 35	42	39.786	±	6.311		
	35 < 45	22	39.273	±	5.675		
	45 – and more	3	35.333	±	4.041		
Date of last of admission to hospital	0	26	37.885	±	9.404	1.922	0.131
	1-5.	29	37.379	±	8.270		
	5-10.	34	40.647	±	5.720		
	>10	11	34.909	±	7.063		
Number of admission	1<5	23	38.261	±	8.492	2.513	0.063
	5<10	30	39.467	±	7.794		
	10 <15	37	39.162	±	5.284		
	15- and more	10	32.200	±	11.802		
Manner of admissions	Voluntary	69	38.652	±	6.998	0.575	0.567
	Involuntary	31	37.677	±	9.481		
Insight	Yes	38	39.658	±	7.535	1.315	0.192
	No	62	37.548	±	7.936		
Does any person in the family have a mental illness?	Yes	4	37.000	±	1.155	-0.351	0.726
	No	96	38.406	±	7.970		

Relationship Between Positive Symptoms of Schizophrenia And Level of Anxiety Among Schizophrenic Patients

Table (2): Mean score of positive symptoms for schizophrenia among patients with different clinical characteristics

clinical characteristics	N	positive Symptoms of schizophrenia			ANOVA or T-test		
		Mean	±	SD	Test value	P-value	
Age at the onset of disease	15 < 25	33	57.182	±	15.930	3.023	0.033
	25 < 35	42	64.452	±	15.048		
	35 < 45	22	67.727	±	15.995		
	45 – and more	3	50.000	±	6.928		
Date of last of admission to hospital	0	26	68.500	±	18.662	2.037	0.114
	1-5.	29	58.379	±	13.597		
	5-10.	34	61.618	±	15.809		
	>10	11	60.455	±	11.852		
Number of admissions	1<5	23	56.783	±	15.178	1.853	0.143
	5<10	30	64.100	±	17.038		
	10 <15	37	65.541	±	15.023		
	15- and more	10	58.000	±	15.100		
Manner of admission	voluntary	69	62.899	±	15.327	0.498	0.620
	Involuntary	31	61.097	±	17.312		
Are you mentally ill?	Yes	38	65.711	±	12.993	1.790	0.077
	No	62	60.274	±	17.222		
Does any person in the family have a mental illness?	Yes	4	56.000	±	5.831	-1.972	0.103
	No	96	62.604	±	16.146		

Table (3) : Correlation between positive symptoms of schizophrenia and level of anxiety

Item	positive symptoms of schizophrenia	
	r	P-value
level of anxiety	0.621	<0.001*

Discussion

Level of anxiety is associated with clinical symptomatology in patients with schizophrenia higher level of anxiety is connected with more severe hallucinations. Social anxiety is a frequent comorbidity of schizophrenia but often remains unrecognized and is thus associated with a high level of disability. Social anxiety is linked with heightened positive symptoms **Vrbova, et al., (2013)**.

The result, of the present study revealed that the majority of studied sample have positive symptoms of schizophrenia and nearly of the half of

studied sample had moderate positive symptoms. Moreover about one third of them had severe positive symptoms. This is could be due to the patients who included in the studied sample were newly diagnosed by schizophrenia or in the relapse phase of the disease. This result is congruent with **Spaniel, et al., (2017)** . Relapse of schizophrenia cause acute positive symptoms. Such as ‘restlessness’ (increased compulsion to walk up and down; inability to stay in one place; feelings of inner tension without any obvious cause) and ‘sleep disturbance’ (insomnia ;frequent

awakening during the night; early morning a wakening ,difficulty falling asleep).

This finding is also consistent with **Rooijen , et al .(2017)** who used in his study The PANSS scale to measure the severity of positive , Result revealed that high centrality of The symptoms of stereotyped thinking , delusions , difficulty in abstract thinking , lack of spontaneity, disorganization , hallucinatory behavior, excitement , grandiosity , suspiciousness , hostility .

Regarding the level of anxiety among schizophrenic patients. Result of the present study showed that nearly to two thirds of studied patients had severe level of anxiety while the minority of them have mild level of anxiety. This result is congruent with **Vrbova , et al. (2013)** who found that schizophrenic patients had panic attacks and Social anxiety, This cause a high level of disability and higher levels of anxiety.

Regarding the relationship between clinical characteristics and Anxiety, The result of present study revealed that there was no statistical significant relationship between clinical characteristics of the studied sample and mean score of anxiety .This finding is consistent with **Karpov, et al.,(2016)** who found that there was no significant relationship between OASIS (Overall Anxiety Severity & Impairment scale) scores and clinical characteristics .

For relationship between clinical characteristics and level of positive symptoms of schizophrenia. The result of clarified that schizophrenia was higher among patients 35-44 years, where disorganized type manifested in the early adulthood characterized by more positive symptoms and more deterioration of the condition so become poorly progressive by treatments and respond to different management techniques slowly .This finding is consistent with **Ping Liu & Chen Kao , (2010)** . who found that age of onset is necessarily act to determine the course of schizophrenic disorder as evidence age of onset of disease when

begin early leading to a more severe course of illness .

Regarding the relationship between positive symptoms of schizophrenia and level of anxiety among of schizophrenic Patient. The current study revealed that there is a significant correlation between positive symptoms of schizophrenia and level of anxiety among patients with schizophrenia. This means that when the positive symptoms increase, level of anxiety increase . This result is consistent with **Vrbova , et al., (2013) and Aguocha, et al . , (2015).** they found that the Level of anxiety was associated with positive symptoms in patients with schizophrenia ,higher level of anxiety is connected to more severe positive symptoms, severe anxiety is related to positive symptoms mostly to paranoid delusions .On other hand this result contradicted with **Lysaker , et al., (2015)** who found in his study that carried out on the patients who have schizophrenia have obsessive compulsive symptoms.

Conclusions:

Positive symptoms schizophrenia is positively correlated with level of anxiety, In other words higher level of positive symptoms of schizophrenia are positively correlated with higher level of anxiety.

Recommendations:

Appropriate management of schizophrenia is important through pharmacological and other non pharmacological to reduce level of anxiety. Stress management and diversional activity therapy should be given for the schizophrenic patients to help them to minimize or cope with positive symptoms and anxiety level. Early appropriate management of schizophrenia through all accessible methods (pharmacological and other non pharmacological) to reduce level of anxiety.

Relationship Between Positive Symptoms of Schizophrenia And Level of Anxiety Among Schizophrenic Patients

References:-

- Aguocha, C., Uwakwe ,R & Onyeama ,G.(2015) . Co-morbid anxiety disorders in patients with schizophrenia in a tertiary institution in SouthEastNigeria: prevalence and correlates ,Pp 1-5.
- Andreasen,N.(2011): Scale for the assessment of positive symptoms,Psychaitric University Hospital Zurich, Division of Clinical Psychiatry.
- Culpepper,L.(2016). Social anxiety disorder in the primary care setting. *Journal of Clinical Psychiatry*, 67(Suppl 12), 31–37.
- De Pinho ,L., Pereira , A., & Chaves , C. (2017) . Nursing Interventions in Schizophrenia: The Importance of Therapeutic Relationship , *Nursing & Care Open Access Journal* , Vol (3) .
- Dernovsek , M., and Sprah, L .(2014) . Comorbid Anxiety in patients with Psychosis , *Psychiatria Danubina*, Vol. (21), Pp 43- 44 .
- Elattar, N.,(2015).Psycho educational intervention program for relapse prevention among schizophrenic patients , *psychiatric department* ,p.(9)
- Fahimey,M.,and Ghally,M.(2013) : Anxiety scale, www.cbtarabia.com.
- Hartley,S., Barrowclough, C., &Haddock, G. (2013) . Anxiety and depression in psychosis : a systematic review of association with positive psychotic symptoms, vol (128) pp. 327-346 .
- Hogan, M.,(2013) . *Prentice Hall nursing reviews and rationales mental health nursing* , 2nd ed., parson Prentice Hall , New Jersey , pp: 176-193.
- Karpov, B., Joffe, G., Aaltonen, K. & Suvisaari, J. (2016) . Anxiety symptoms in a major mood and schizophrenia spectrum Vol (37) Pp (1-7) .
- Lysaker , PH., Marks , KM., Picone, JB., Rollins , AL. & Fastenau, PS. (2015) . Obsessive compulsive symptoms in schizophrenia: Clinical and neurocognitive correlates. *J Nerv Ment Dis*. P: (78) .
- Ping Liu , Y. & Chen Kao , Y .(2010) . Effects of age of onset on clinical characteristics in schizophrenia spectrum disorders , *BMC Psychiatry* , V(10) .
- Rooijen , G., Isvoranu , A ., Kruijt , O . & Borkulo , C . (2017) . A state-independent network of depressive, negative and positive symptoms in male patients with schizophrenia spectrum disorders , *University of Amsterdam, Academic Medical Center, Department of Psychiatry*, Vol (6) , Pp 1-8 .
- Shives,I.(2015): Basic concepts of psychaitric- mental health nursing,8th ed.,wolter Kluwer,health, china, Pp 254-255.
- Spaniel ,F., Barkstein, E., & Anyz, J(2017). Relapse in Schizophrenia Definitely not a bolt from the blue ,*Charles university, Prague* , Pp 1-2
- Videbeck,s. (2014):*Psychaitric mental health nursing*,5th ed., wolter Kluwer,health, china, Pp 253- 254.
- Vrbova, K., Prasko,J., & Dana Kamarádová,D.(2013) . Comorbid anxiety disorders in patients with schizophrenia, *Department of Psychiatry, Faculty of Medicine and Dentistry, Palacky University Olomouc*, vol (55) No. 1–2 .
- World Health Organization (WHO), (2015) . *Schizophrenia*. Available at:http://www.who.int/mental_health/management/schizophrenia/en/. Retrieved on: 27/7/2017 , at 7 pm .