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ESTIMATION OF TREATMENT COMPLIANCE IN SCHIZOPHRENIA IN GUNTUR CITY

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ABSTRACT

Background: Schizophrenia is psychiatric illness, characterized by abnormality in thinking, language skills, change in perception and the sense of self. Its manifestations are mainly delusions and hallucinations. A detail study of treatment compliance will provide the insight requirement to improve or take precautions to decrease disease progression. **Objective**: This study is conducted to study the treatment compliance in schizophrenia patients. To know the treatment compliance in Schizophrenia. Assessment of positive and negative symptoms. To assess the compliance in Schizophrenia using ROMI scale. **Methodology:** The prospective, observational study was conducted in outpatient department of psychiatry. Schizophrenia patients were enrolled into the study by considering inclusion and exclusion criteria. Details of demography, treatment and other medical details were captured in patient data collection from a baseline. **Results:** Nearly 53% of this study sample were non-compliant to medication. A significant association has been found between non-compliance and Gender, Education, unemployment, Marital status and Economical status. The significant reasons for non-compliance in our study were Denial of illness, financial

burden, less access to treatment facilities, Side-effects of the medication, feeling that the medication was unnecessary and Substance abuse. **Conclusions:** Out of the total 110 patients initially considered for the study 10 were excluded based on the fixed exclusion criteria. The final study sample was 100 (100%) of which 53 (53%) were compliant and 47 (47%) were non-compliant to the medication Our study findings suggest that there is a need for identification and reduction of factors responsible for noncompliance in schizophrenic patients.

KEYWORDS: Attitudes, non-compliance, schizophrenia.

INTRODUCTION

Schizophrenia is a multiple manifested disease and stands for longer periods. It's not easy to diagnose as its signs and symptoms are quite related with other frequently exposed psychiatric illnesses.[1] Approximately 7 or 8 individuals out of 1,000 will have schizophrenia in their lifetime.[2] Symptoms of schizophrenia usually start between ages 16 and 30. In rare cases, children have schizophrenia too.[3] The symptoms of schizophrenia fall into three categories: positive, negative, and cognitive.[4]

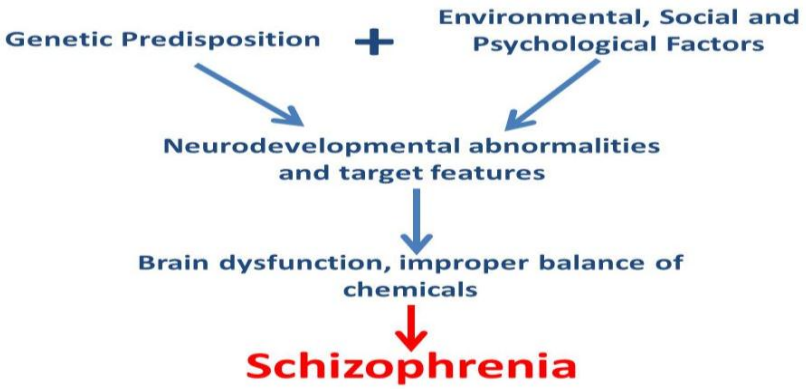
Different Types of Schizophrenia[5,6]

- Paranoid schizophrenia
- Hebephrenic schizophrenia
- Catatonic schizophrenia
- Undifferentiated schizophrenia
- Post-schizophrenic depression
- Residual schizophrenia
- Simple schizophrenia
- Other schizophrenia
- Schizophrenia, unspecified.

Causes of schizophrenia: Research has identified several factors that contribute to the risk of developing schizophrenia.

Genes and Environment: Scientists have long known that schizophrenia sometimes runs in families. The illness occurs in less than 1 percent of the general population, but it occurs in 10 percent of people who have a first-degree relative with the disorder, such as a parent,

brother, or sister. People who have second- degree relatives (aunts, uncles, grandparents, or cousins) with the disease also develop schizophrenia more often than the general population.[7] The risk is highest for an identical twin of a person with schizophrenia. He or she has a 40 to 65 percent chance of developing the disorder.[8]



Different Brain Chemistry and Structure: Scientists think that a disproportion in the brain complex, interrelated to the chemical reactions of the brain involving the neurotransmitters dopamine and glutamate, and possibly others, plays a key role in schizophrenia. Neurotransmitters are the substances that brain cells use to communicate with each other. Scientists are more interested in learning more about how brain chemistry is related to schizophrenia. Also, the brain structures of some people with schizophrenia are seems slightly different than those of healthy people. For example, fluid-filled cavities at the centre of the brain, called ventricles, are larger in some people with schizophrenia. The brains of people with the illness also tend to have less grey matter, and some areas of the brain may have less or more activity.[9] These differences are observed when brain scans from a group of people with schizophrenia are compared with those from a group of people without schizophrenia. However, these differences are not good enough to diagnose individuals with the disorder and are not currently used to diagnose schizophrenia.[10] Studies of brain tissue after death also have revealed differences in the brains of people with schizophrenia. Scientists have found small changes in the location or structure of brain cells that are formed before birth. Some experts think problems during brain development before birth may lead to faulty connections. The problem may not show up in a person until puberty. The brain undergoes major changes during puberty, and these changes could trigger psychotic symptoms in people who are vulnerable due to genetics or brain differences. Scientists have learned a lot about schizophrenia, but more research is needed to help explain how it develops.[11]

Epidemiology: Schizophrenia affects slightly more males than females. It occurs in all ethnic groups around the world. Males tend to experience symptoms a little earlier than females. Schizophrenia is a severe form of mental illness affecting about 7 per 1000 adults globally. Schizophrenia affects around 0.3–0.7% of people at some point in their life, or 24 million people worldwide as of 2011.

In 2000, the World Health Organization found the percentage of people affected and the number of new cases that develop each year is roughly similar around the world, with age-standardized prevalence per 100,000 ranging from 343 in Africa to 544 in Japan and Oceania for men, and from 378 in Africa to 527 in Southeastern Europe for women. About 1.1% of adults have schizophrenia in the United States.[12]

METERIALS AND METHODS

The present research was a prospective, observational study. The study was carried out at out-patient department of psychiatry of Manasa Hospital, Kothapet, Old Club Road, Guntur and this study was conducted for 6 Months. Total 115 patients initially considered for the study 10 were excluded based on the fixed exclusion criteria. The final study sample was 105. The study sample consists of consecutive follow-up patients attending the out-patient services in the Manasa hospital for schizophrenia. After taking informed verbal consent, all patients were systematically interviewed along with the attendant and the socio-demographic details were noted. Subjective reasons of medication compliance/non-compliance were assessed using 20 item Rating of Medication Influence (ROMI) scale.

RESULTS AND DISUSSIONS

➢ Out of total 100 members 51 members were male and 49 members were female, among male 21(41.17%) were compliant and 30(58.80%) were non-compliant. Among females 26(50.98%) members were compliant and 23(46.93%) members were non-compliant. In total 47(47%) were compliant and 53(53%) were non-compliant to the treatment.

Table No: 1: Gender* compliance.

		Compliance		Total
		Compliant	Non-Compliant	
Gender	Male	21(41.17%)	30(58.8%)	51
	Female	26(50.98%)	23(46.93%)	49
Total		47(47%)	53(53%)	100

Chi square value: 2.571, P value: 0.2* Significant <0.05

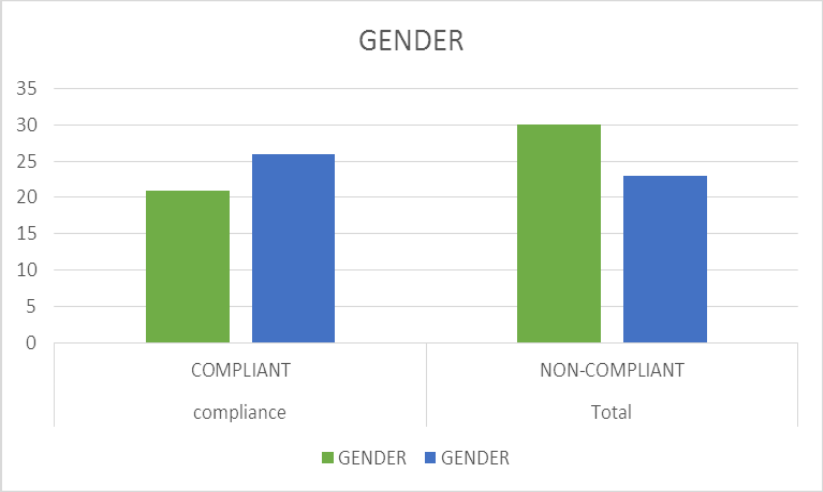


Figure No. 1.

➢ Out of 100 members 33 were uneducated, 21 were primary, 31 were secondary, 14 were intermediate, 1 member was graduated. Among uneducated members 15(45.58%) were compliant and 18(54.54%) were non compliant. Among primary educated members 14(66.66%) were compliant and 7(33.33%) were non compliant. Among secondary educated members 10(32.25%) were compliant and 21(67.74%) were non compliant. Among intermediate members 7(50%) were compliant and 7(50%) were non compliant. Among graduated members 1(100%) member is compliant. Among all 47(47%) members were compliant and 53(53%) members were non compliant.

Table No: 2: Education* compliance.

		Compliance		Total
		Compliant	**Non-Compliant**	
Education	1(uneducated)	15(45.45%)	18(54.54%)	33
	2(primary)	14(66.66%)	7(33.33%)	21
	3(secondary)	10(32.25%)	21(67.74%)	31
	4 (intermediate)	7(50%)	7(50%)	14
	5(graduates)	1(100%)	0(0%)	1
Total		47(47%)	53(53%)	100

Chi square value: 7.175, P value: 0.027* Significant <0.05

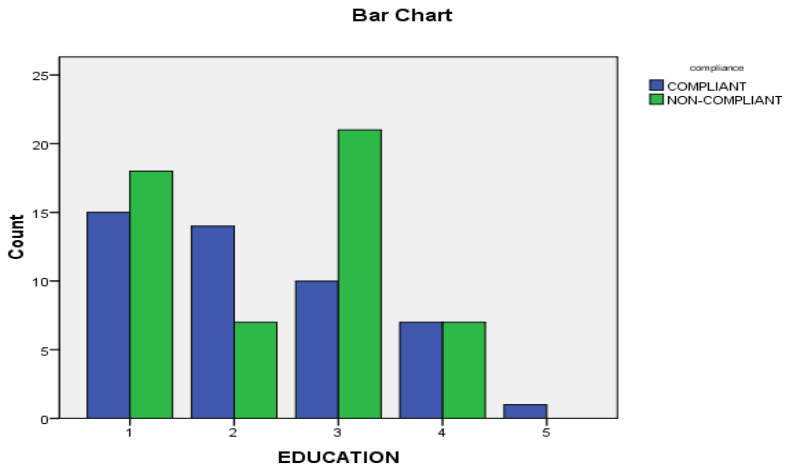


Figure. No: 2.

➢ Out of 100 members 24 members were labour, 42 members were unemployed, and 34 members were employed. Among the labour 10(41.66%) members were compliant and 14(58.33%) members were non-compliant, among the unemployed 14(33.33%) members were compliant and 28(66.64%) members were non-compliant, Among the employed 23(67.64%) members were compliant and 11(32.35%) members were non-compliant. In total 47(47%) were compliant and 53(53%) were non-compliant.

Table No: 3. Occupation* compliance.

		Compliance		Total
		Compliant	**Non-Compliant**	
Occupation	1(Labour)	10(41.66%)	14(58.33%)	24
	2(Unemployed)	14(33.33%)	28(66.66%)	42
	3(Emplyoed)	23(67.64%)	11(32.35%)	34
Total		47(47%)	53(53%)	100

Chi square value: 9.242, P value: 0.010* Significant <0.05

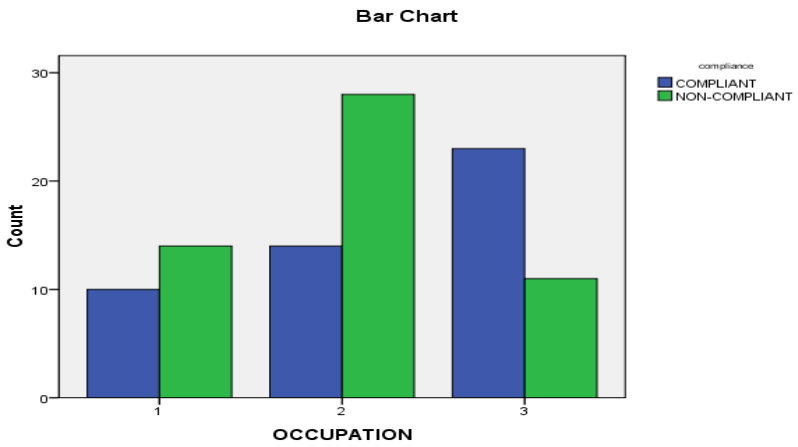


Figure. No: 3.

➢ Out 0f 100 members 55 members were married, 10 members were divorced, 5 members were separated, 2 members were widowed, and 28 members were unmarried. Among married members 28(50.90%) were compliant and 27(49.09%) were non-compliant. Among the divorced 6(60%) members were compliant and 4(40%) members were non-compliant. Among the separated 5(100%) members were compliant, among the widowed 2(100%) members were compliant, among the unmarried 6(21.42%) members were compliant and 22(48.57%) members were non-compliant. In total 47(47%) members were compliant and 53(53%) members were non-compliant.

Table No: 4. Maritalstatus* compliance.

		Compliance		Total
		COMPLIANT	Non-Compliant	
Maritalstatus	1(Married)	28(50.90%)	27(49.09%)	55
	2(Divorced)	6(60%)	4(40%)	10
	3(Separated)	5(100%)	0(0%)	5
	4(Widowed)	2(100%)	0(0%)	2
	5(Unmarried)	6(21.42%)	22(48.57%)	28
Total		47(47%)	53(53%)	100

Chi square value: 16.260, P value: 0.003* Significant < 0.05

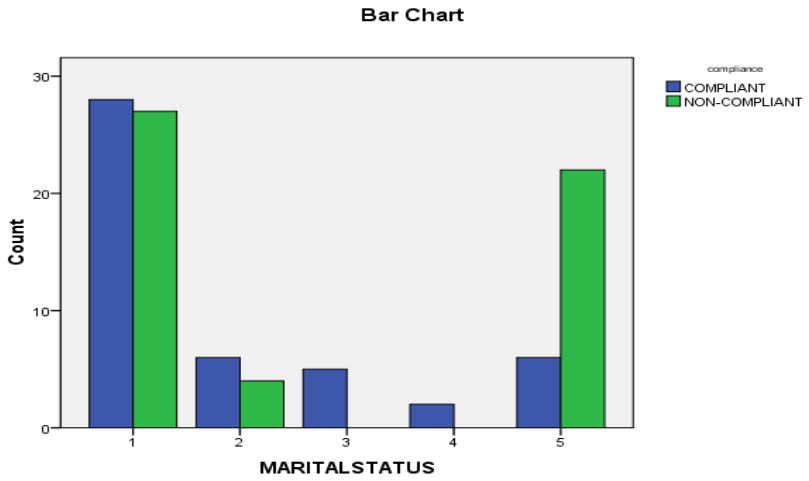


Figure No: 4.

➢ Out of 100 members 17 were economically high, 55 members were economically middle, 28 members were economically low. Among high class people 10(58.32%) were compliant and 7(41.17%) were non-compliant. Among middle class people 21(38.18%) members were compliant and 34(61.81%) members were non-compliant. Among low class people 16(57.14%) members were compliant and 12(42.85%) members were non-compliant. In total 47(47%) members were compliant and 53(53%) members were non-compliant.

Table No: 5. Economical* compliance.

		Compliance		Total
		Compliant	Non-Compliant	
Economical	1(High)	10(58.82%)	7(41.17%)	17
	2(Middle)	21(38.18%)	34(61.81%)	55
	3(Low)	16(57.14%)	12(42.85%)	28
Total		47(47%)	53(53%)	100

Chi square value: 3.827, P value: 0.048* Significant <0.05.

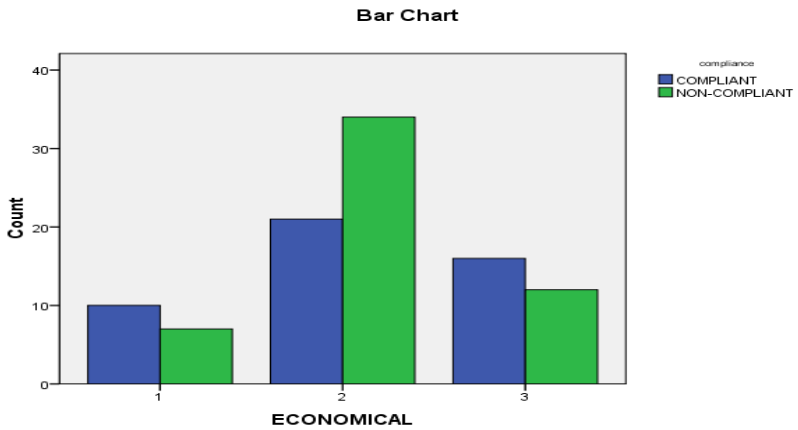


Figure No: 5.

Table. 6: Reasons for Compliance.

Reasons	Compliant (%)			Non-Compliant(%)			P Value
	NONE	MILD	STRONG	NONE	MILD	STRONG	
1. Perceived daily benefit <0.01	0	16.3	83.7	47.7	47.7	4.6	<0.01
2. Family belief	6.6	18	75.4	20.4	68.2	11.4	<0.01
3. Relapse prevention	13.2	32.8	54.1	61.4	38.6	0	<0.01
4. Pressure/force	6.5	27.9	65.6	13.7	63.6	22.7	<0.01

Table. 7. Reasons for Non Compliance.

Reasons	Compliant (%)			Non-Compliant (%)			P Value
	None	Mild	Strong	None	Mild	Strong	
1. Denail of illness	42.6	50.8	6.6	2.3	27.3	70.4	<0.001
2. Financial obstacles	75.4	18	6.6	15.9	29.6	54.5	<0.001
3. Medication currently unnecessary	80.3	13.1	6.6	6.8	47.7	45.5	<0.001
4. Access to treatment problems	96.7	3.3	0	34.1	34.1	31.9	<0.001
5. Distressed by side effect	90.2	8.2	1.6	47.7	31.8	20.5	<0.001
6. Substance abuse	96.7	0	3.3	65.9	20.5	13.6	<0.001

CONCLUSION

➢ Out of the total 110 patients initially considered for the study 10 were excluded based on the fixed exclusion criteria. The final study sample was 100 (100%) of which 53 (53%) were compliant and 47 (47%) were non-compliant to the medication Our study findings suggest

that there is a need for identification and reduction of factors responsible for noncompliance in schizophrenic patients.

➢ There is also a need to provide adequate information about mental illness and medications prescribed, to enhance medication compliance and to develop community mental health care facilities for the awareness regarding the illness.

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