

Comparison of Adverse Drug Reactions and Medication Adherence in Patients with Schizophrenia Using Typical and Atypical Antipsychotics at Tertiary Care Hospital

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ABSTRACT

OBJECTIVE: Our study aimed to compare the adverse drug reactions and compliances in patients with schizophrenia using typical and atypical antipsychotics at tertiary care hospitals.

METHOD: Psychiatric outpatients under antipsychotic drugs for more than 3 months who are assessed for medication adherence using the Morisky Medication Adherence Rating Scale (MMAS- 8) and incidence of ADR by using Naranjo's scale was used. Details regarding socio-demographic variables (age, sex, education, marital status, and employment), illness-related variables (diagnosis, duration) family history, personal habits, and variables (type, mode of administration, dosage, and frequency) were obtained.

RESULTS: There were 75 participants. They were categorized based on different variables such as age, gender, personal history, and number of atypical antipsychotics. Our study declares that patients show a Low level of adherence, and those with personal histories such as alcohol consumption and cigarette smoking show a Low level of adherence. Patients self-administering the drugs show low levels of Adherence compared to those who administer with the help of a caregiver.

CONCLUSION: Our study showed that patients with schizophrenia, negative attitude towards treatment, personal habits, usage of more than 1 Atypical antipsychotic, who lack a caregiver and those with comorbid conditions majorly show Low levels of adherence towards medication. This study helps in creating clinical awareness among both healthcare professionals and patients. Caregivers must be educated about the importance of medication adherence in

psychiatric patients. Planning intervention strategies helps to improve Adherence.

Keywords: Morisky Medication Adherence Rating Scale (MMAS-8) Naranjo's scale Schizophrenia, Atypical antipsychotics.

I. INTRODUCTION

Psychiatry is a medical specialty dedicated to the diagnosis, prevention, and treatment of mental illness. This includes symptoms related to behavior, mood, cognition, and insight. A person's mental health is affected by a union of factors that are specific to an individual and interactions with society and family.

According to WHO, mental disorders consist of a broad range of conditions, with different symptoms. Mental health is a state of good health in which an individual understands his or her abilities, and can manage with the normal pressure of life. Mental health includes individual well-being, assess self-efficacy, autonomy, capability, dependence, and self-realization of one's cognitive and emotional capability.

Mental health may include a person's ability to enjoy life and to create a balance between life activities and efforts to achieve psychological durability. Mental health is related to factors such as diet, exercise, drug abuse, social connections, stress, and interactions. There are five types of definitions of mental health absence of health, a condition that a doctor treats, biological disadvantage, a curative process, and a presence of a disease condition.

The frequency of mental health was found to be high in Indian urban centers with a high frequency of schizophrenia, mood disorders, and stress-related disorders. The frequency of mental

health is high among males as compared to females. The frequency in adolescents from the age group of 13-17 is most affected. The most common problems are anxiety, depression, and psychotic disorder. Neurosis is a class of mental disorders that involve chronic discomfort, but either hallucinations or delusion, neurosis should not be taken for psychosis, which refers to loss of touch with reality. Neurotic disorders include anxiety, depression, OCD, and post-traumatic stress disorder. People with psychotic disorders lose contact with real and experience the symptoms like hallucinations – an experience involving the apparent perception of something not present. Delusions what is real from what is imagined. Psychotic disorders include schizophrenia, schizophrenic disorder, delusional disorder, and psychotic disorder.

II. AIMS OF THE STUDY

The study mainly aims to compare adverse drug reactions and compliances in patients with schizophrenia using typical and atypical antipsychotics at tertiary care hospital.

III. OBJECTIVES OF THE STUDY

To estimate the ADRS in schizophrenia patients using typical and atypical antipsychotics by using naranjo's scale of ADR outpatient attending the psychiatry OPD.

To compare the medication adherence in schizophrenia patients using typical and atypical antipsychotics by using morisky's medication adherence scale in outpatient attending the psychiatry OPD.

IV. METHODOLOGY

STUDY DESIGN: Descriptive observational study.

STUDY SITE: It was conducted at psychiatry out-patient department of government general hospital, Kurnool.

STUDY DURATION: The present study was conducted for a period of 6 months from 2021 to 2022.

females; specific mental health is more in females.

SAMPLE SIZE: During a period of 6 months, a total of 75 cases were collected and studied.

INCLUSION CRITERIA

- Subjects who were diagnosed to have Schizophrenia
- Only out patients were included in the study.
- Patient receiving either typical or atypical antipsychotics.
- Patients of age greater than 18yrs are included in the study.
- Either gender is considered.

EXCLUSION CRITERIA

- Patients who were receiving medications other than allopathic drugs.
- The data collection is not possible from aggressive and violent patients of categorical variables.

SOURCE OF DATA

All the required data was collected from patients through personal interview by using a patient data collection proforma.

V. PLAN OF STUDY

- All the patients satisfying the inclusion criteria were selected from the Psychiatric Department in Government General Hospital, Kurnool.
- All the data for study was collected from the subjects by using proforma.
- The data collection proforma includes Demographic details, marital status, occupational history, Personal history, drug chart, Evaluating medication adherence by using Morisky's adherence scale, Evaluating adverse reactions by naranjo's questionnaire.

VI. RESULTS

6.1 AGE AND GENDER WISE DISTRIBUTION

6.1: GENDER DISTRIBUTION

GENDER	NUMBER OF PARTICIPANTS	PERCENTAGE (%)
Males	37	49.33
Females	38	50.66
Total	75	100

GENDER WISE DISTRIBUTION

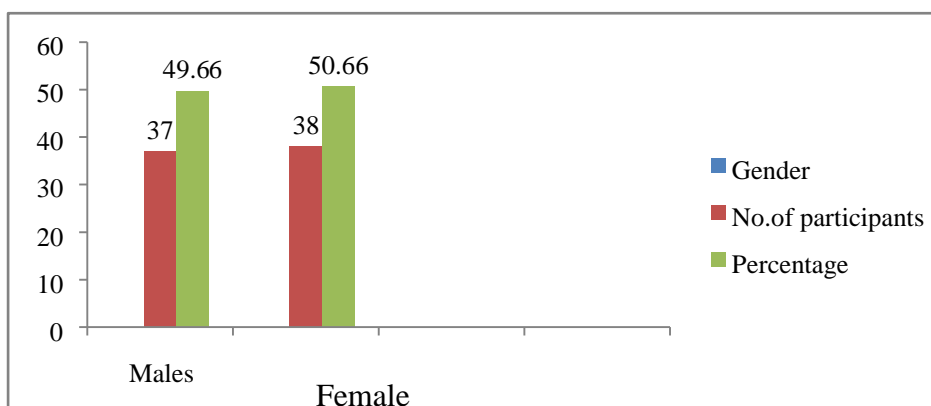
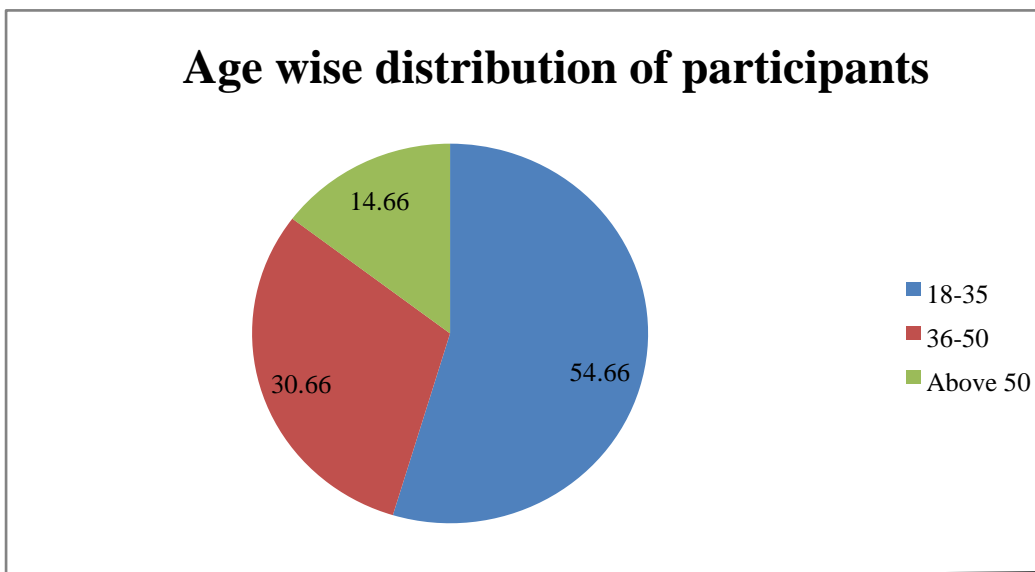


Fig: 6.1.A.GENDER WISE DISTRIBUTION

AGE WISE DISTRIBUTION

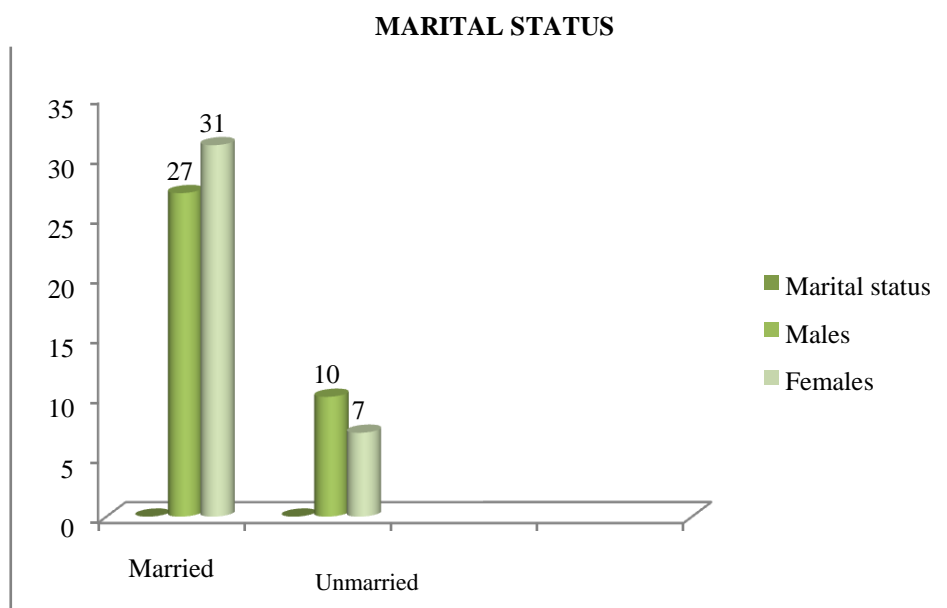
AGE GROUP	NUMBER OF PARTICIPANTS	PERCENTAGE (%)
18-35	41	54.66
36-50	23	30.66
Above 50	11	14.66



6.2. B. AGE WISE DISTRIBUTION OF PARTICIPANTS

6.3. DISTRIBUTION OF PATIENT BASED ON MARITAL STATUS

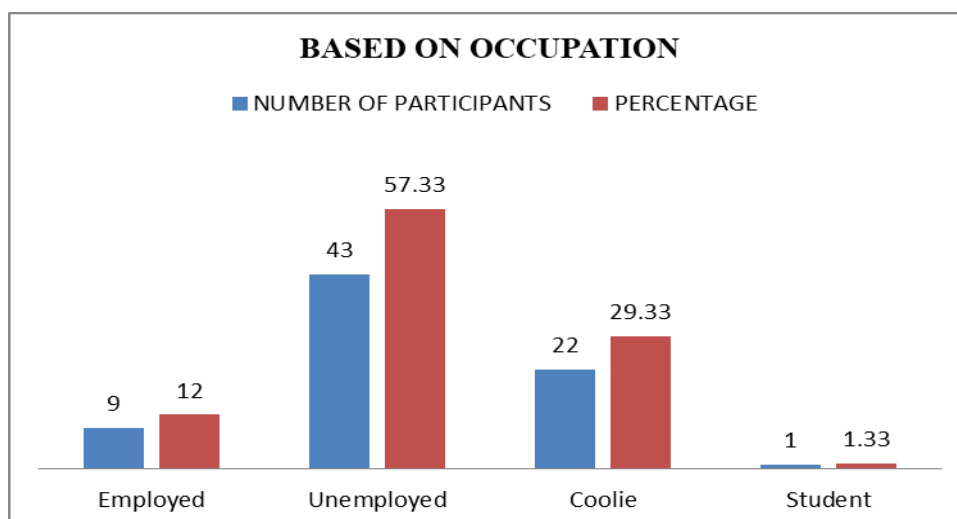
MARITAL STATUS	MALES	FEMALES	TOTAL	PERCENTAGE (%)
Married	27	31	58	77.33
Unmarried	10	7	17	22.66



6.3. C. MARITAL STATUS

6.4 DISTRIBUTION BASED ON EDUCATION LEVEL

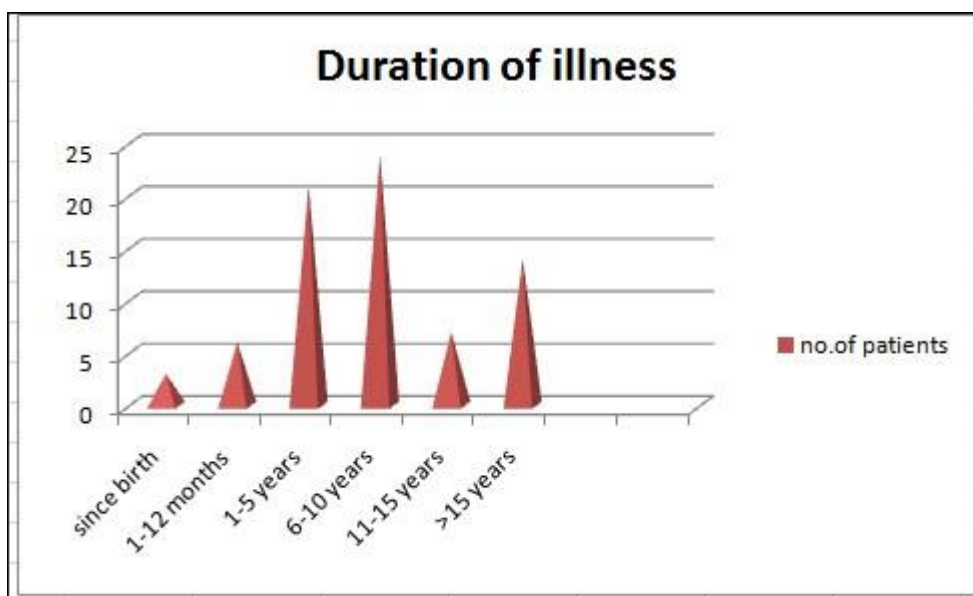
OCCUPATION	NUMBER OF PARTICIPANTS	PERCENTAGE
Employed	9	12
Unemployed	43	57.33
Coolie	22	29.33
Student	1	1.33



6.4. D. DISTRIBUTION BASED ON OCCUPATION

6.5 DISTRIBUTION BASED ON DURATION OF ILLNESS

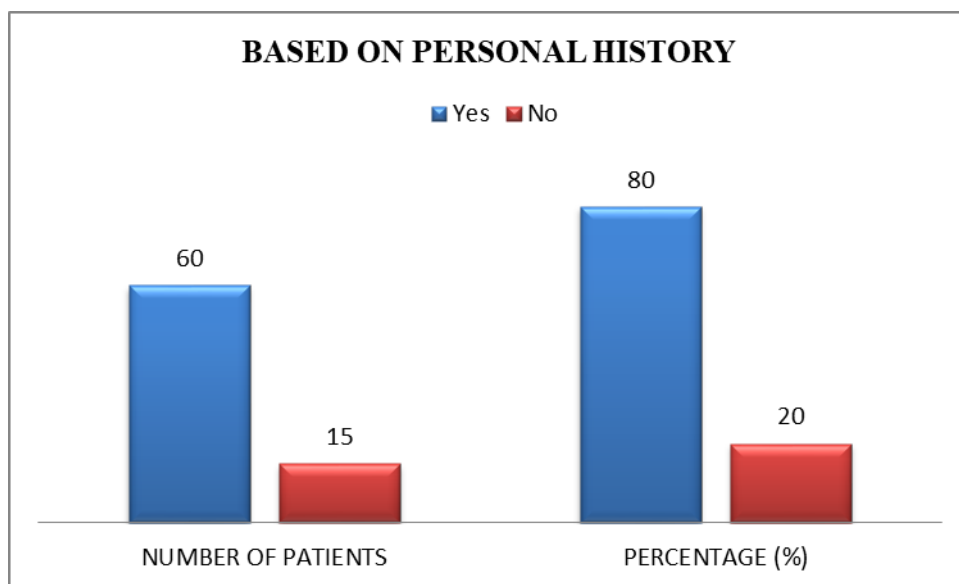
DURATION OF ILLNESS	NUMBER OF PATIENTS	PERCENTAGE (%)
Since birth	3	4
1-12months	6	8
1-5 years	21	28
6-10 years	24	32
11-15 years	7	9.33
>15 years	14	18.66



6.5. E. DISTRIBUTION BASED ON ILLNESS

6.6: DISTRIBUTION BASED ON PERSONAL HISTORY

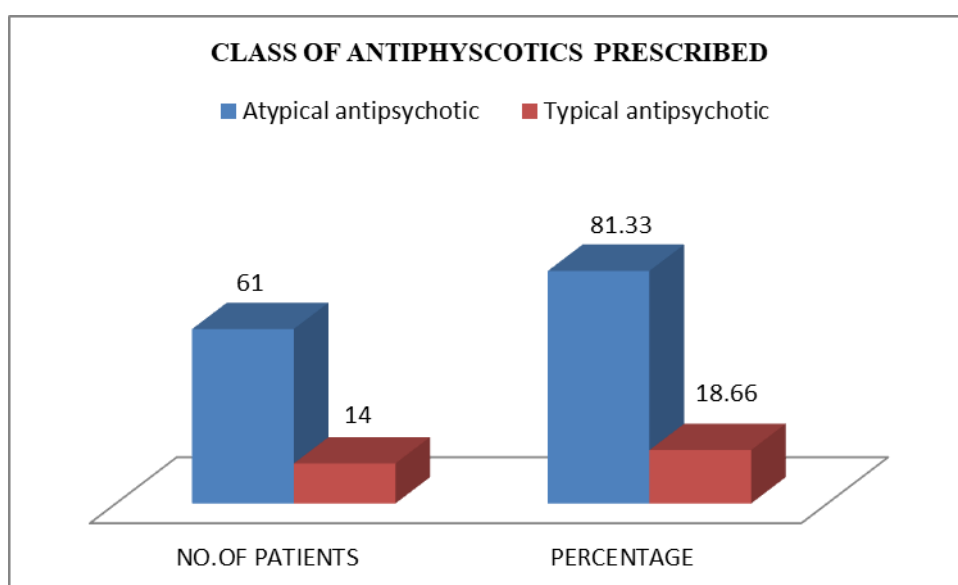
PERSONAL HISTORY	NUMBER OF PATIENTS	PERCENTAGE (%)
Yes	60	80
No	15	20



6.6. E. DISTRIBUTION BASED ON PERSONAL HISTORY

6.7 DISTRIBUTION OF PATIENT BASED ON CLASS OF ANTIPSYCHOTICS PRESCRIBED

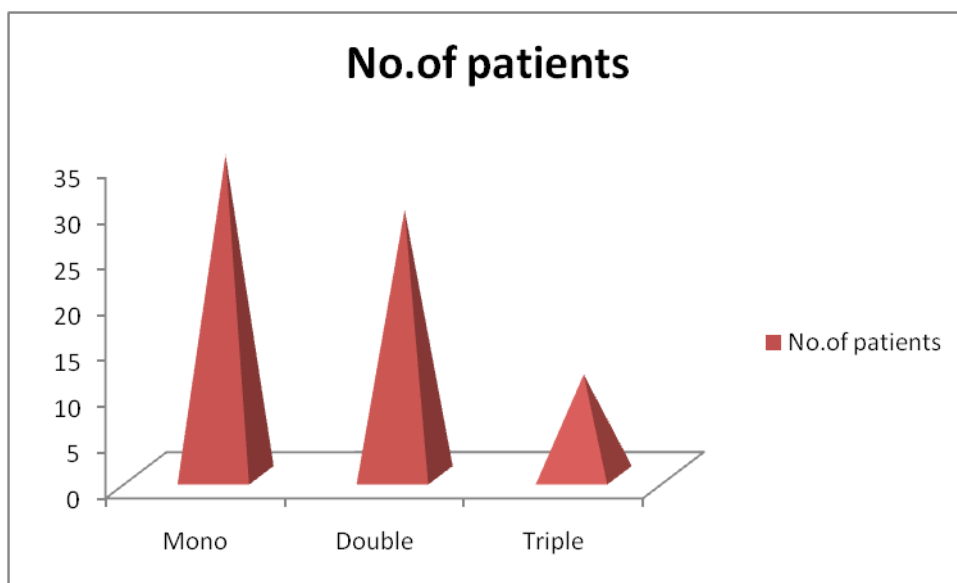
CLASS OF ANTIPSYCHOTICS	NUMBER OF PATIENTS	PERCENTAGE (%)
Atypical antipsychotic	61	81.33
Typical antipsychotic	14	18.66



6.7. F. DISTRIBUTION OF PATIENT BASED ON CLASS OF ANTIPSYCHOTICS

6.8. DISTRIBUTION OF PATIENTS BASED ON NUMBER OF ATYPICAL ANTIPSYCHOTICS PRESCRIBED

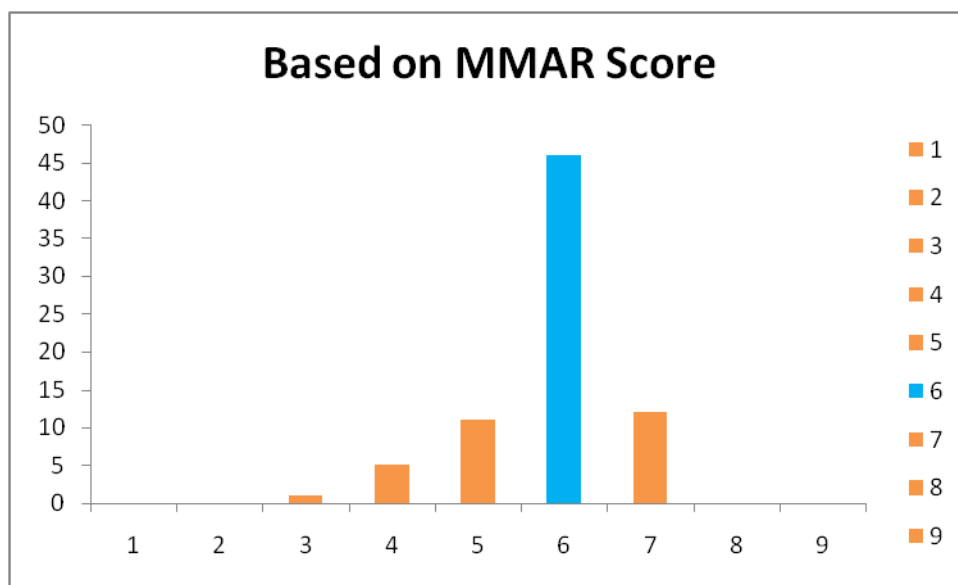
NUMBER OF ATYPICAL ANTIPSYCHOTICS USED	NUMBER OF PATIENTS	PERCENTAGE (%)
Mono Therapy	35	46.66
Dual Therapy	29	38.66
Triple Therapy	11	14.66



6.8. G. NUMBER OF ATYPICAL ANTIPSYCHOTICS PRESCRIBED

6.9 DISTRIBUTION BASED ON MMARS SCORE

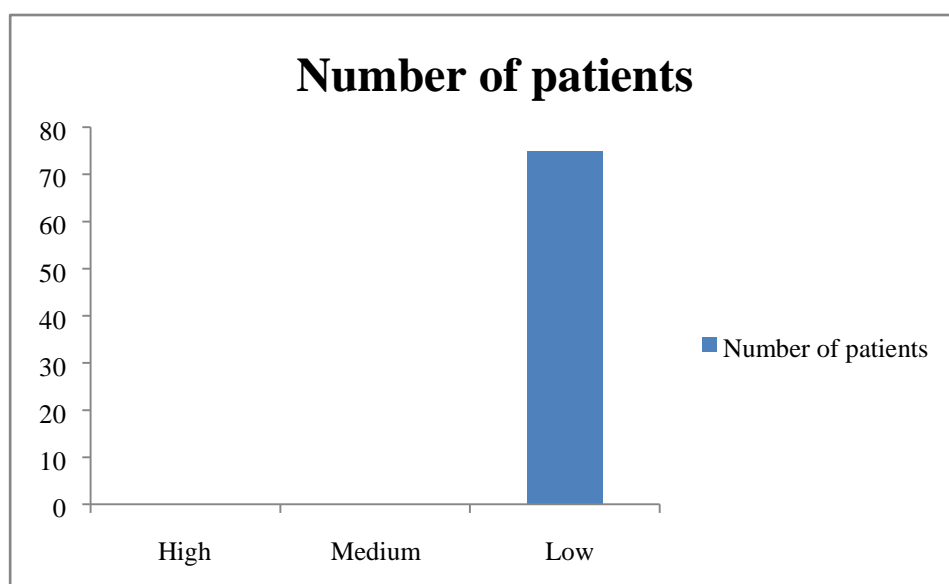
MMARS SCORE	NUMBER OF PATIENTS	PERCENTAGE (%)
0	0	0
1	0	0
2	1	1.33
3	5	6.66
4	11	14.66
5	46	61.33
6	12	16
7	0	0
8	0	0



6.9. H. Distribution based on MMARS SCORE

6.10 DISTRIBUTION BASED ON LEVEL OF ADHERENCE

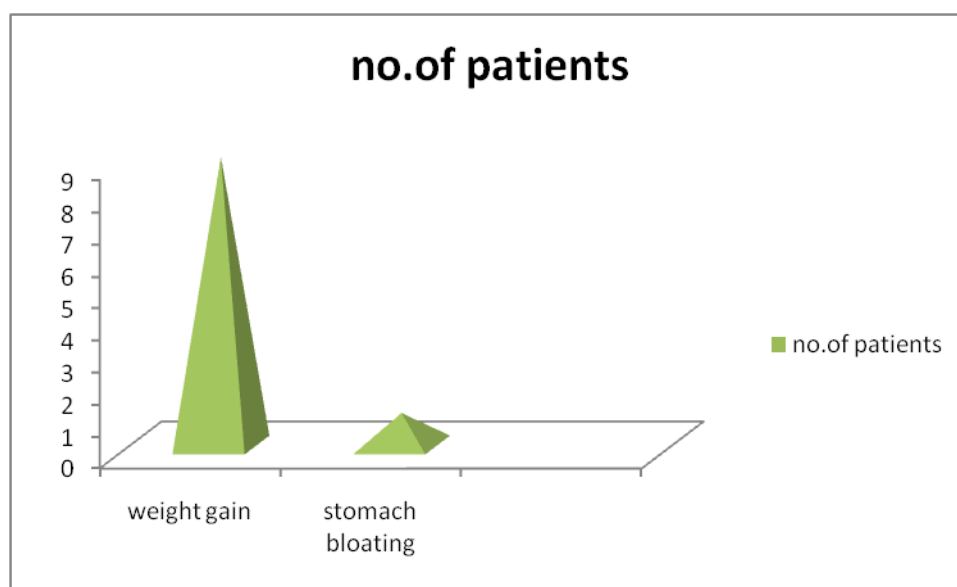
LEVEL OF ADHERENCE	TOTAL NUMBER OF PATIENTS	PERCENTAGE (%)
High	0	0
Medium	0	0
Low	75	100



6.10. I. Distribution based on Level of adherence

6.11. DISTRIBUTION OF ADR'S BASED ON NARANJO'S SCALE

ADR	NUMBER OF PATIENTS WITH LOW ADHERENCE	PERCENTAGE (%)
Weight gain	9	98.67
Stomach bloating	1	1.33



6.11. J. DISTRIBUTION OF ADR'S BASED ON NARANJO'S SCALE

VII.DISCUSSION

It is a prospective observational study which is carried out to assess the comparison of compliance and adverse drug reactions in schizophrenia patients.

Gender wise distribution

In our present study 75 subjects were collected, among them 37(49.33%) were males and 38(50.66%) were females.

Age wise distribution

In our present study the age group of 18-35 years were 41(54.66%) and age group of 36-50 years were 23(30.66%) and age group of above 50years were 11(14.66%). No history of psychiatric illness was found among the family members.

Based on educational qualifications post graduate subjects were 2(2.66%), graduation subjects were 5(6.66%) intermediate subjects were 2(2.66%)

secondary education subjects were 12(16%) primary subjects were 11(14.66%) and ill literates were 43(57.33%).

In our present study Duration of illness was majorly seen in 6-10years were 24 patients (32%).

In our study the commonly prescribed atypical antipsychotics were 61(81.33%) and typical antipsychotics were 14(18.66%).

In our present study 35(46.66%) subjects were prescribed with single atypical antipsychotics and 29(38.66%) subjects were prescribed with dual atypical antipsychotics and (14.66%) subjects were prescribed with triple antipsychotics and 14(18.66%) subjects have received both typical and atypical antipsychotics.

In our present study 30 subjects were prescribed with olanzapine and 4 subjects were prescribed

with risperidone and 1 subject was prescribed with quetiapine.

In our present study 16 subjects were prescribed with olanzapine and risperidone 7 subjects were prescribed with olanzapine and amisulpride and 5 subjects were prescribed with olanzapine and quetiapine and 1 subject were prescribed with risperidone and amisulpride.

In our present study 5 subjects were prescribed with olanzapine and risperidone and amisulpride 3 subjects were prescribed with risperidone+quetiapine+olanzapine and 2 subjects were prescribed with olanzapine and risperidone and quetiapine.

In our present study 66.67% subjects were non-smokers 16% were smokers and 4% were alcoholic and 13.33% were both smoker and alcoholic. In our present study out of 75 subjects 58(77.33%) were married and 17(22.66%) were Unmarried.

In our present study based on MMARS SCORE 12(16%) subjects were scored 6 46(61.33%) subjects were scored 5, and 11(14.66%) subjects were scored 4 and 5(6.66%) subjects were scored 3 and 1(1.33%) subjects were scored 2.

In our present study 9(98.67%) subjects had developed weight gain as an adverse drug reaction and 1(1.3%) subjects had developed gastrointestinal discomfort.

VIII. CONCLUSION

- Medication adherence plays an important role in patient health, especially in psychiatric patients poor medication adherence to antipsychotics may worsen the condition of the patient, hence sticking on and being consistent with the medication is important for patients under antipsychotics.
- Our study proved that patients with Schizophrenia with Negative attitudes, or personal habits, or using 2 atypical antipsychotics or under self-care, or with comorbid conditions show low levels of Adherence towards medication.
- It indicates that these categories of people require extra care and assistance during medication.
- This study also helps in creating clinical awareness among both health care professionals and patients.
- Caregivers of these patients must be educated about the importance of medication in psychiatric illness.
- Planning intervention strategies helps to improve adherence.

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