

# A Study to Assess the Factors Affecting Medication Compliance among Patients with Schizophrenia in a Tertiary Health Care Centre

Maj Agiwangliu Newmai, Lt Col Meena Chacko

**Abstract:** Methods: A cross-sectional non experimental descriptive design was adopted for this study. A systematic random sampling was applied for selection of samples. A socio-demographic questionnaire was designed and the association between socio-demographic profiles and compliance was assessed using statistical inferences. ROMI scale was used to find out the subjective reasons for both compliance and noncompliance. The Medication Adherence scale was used to assess fidelity to pharmacotherapy. Background: Schizophrenia is a severe form of mental illness affecting about 7 per 1000 adults globally. Approximately 80% of patients relapse within 1 year if antipsychotic medications are stopped, whereas only 20% relapse if treated. Aim: The purpose of this study was to assess the factors affecting medication compliance and to understand the association of these factors with drug compliance in schizophrenic patients. Results: The compliance rate in this study was found to be 70%. A significant association was found between compliance and patients belonging to joint family, patients with higher level of insight. The significant reasons for compliance as cited by patients are positive family belief, positive relation with the treating clinician, perceived daily benefits and relapse prevention. Whereas reasons for non-compliance are denial of illness, medication currently unnecessary, access to treatment, distressed by side effect, denial of illness and stigma faced by patients. Conclusions: Findings suggest that there is need to provide adequate information about mental illness and medications prescribed, and to develop effective interventional strategies for improving the compliance of the patients in the future.

**Keywords:** compliance, factors, relapse, denial of illness, side effects, stigma, schizophrenia

## 1. Introduction

Schizophrenia is a chronic and devastating brain disease that affects a person's thinking, language, emotions, social behaviour, and ability to perceive reality accurately. Compliance with prescribed medication regimen is an important factor in determining effectiveness of treatment in schizophrenia. One of the ways to improve the drug compliance is to know the crucial factors responsible for poor drug compliance so that proper strategies may be planned to improve patient's drug compliance.

## 2. Materials and Methods

The study was conducted in Psychiatry Unit of a tertiary health care centre. A non-experimental research designed was adopted to determine the factors affecting the drug compliance among patients diagnosed with schizophrenia. The conceptual framework used for this study was Health Promotion Model proposed by Nola J Pender. Systematic random sampling method was used and 100 samples were selected accordingly.

The research tools used are

- 1) A structured demographic schedule was used to obtain demographic details of the patients.
- 2) Two standardized questionnaires to assess the factors affecting drug compliance
  - a) A standardized Ratings of Patient Medication Influence (RMOI) Scale to assess the reason for compliance or noncompliance.
  - b) A standardized Medication Adherence Rating Scale (MARS).

## 3. Results

**Table 1:** Association between type of family and compliance, (n=100)

Type of family	Compliance		Total
	Yes	No	
Joint	36	23	59
Nuclear	34	7	41
Total	70	30	100

Chi-square = 5.53, P<0.05

Table 1 compares the type of family (joint and nuclear family) with compliance rate shows that the  $\chi^2$  value to be 5.53 which is more than table value at level of significance <0.05. This clarifies that there is significant association between types of family and medication compliance rate (p<0.05). Medication compliance rate was significantly higher among patients belonging to joint family.

**Table 2:** Association between insight variable and compliance, (n=100)

Insight variable	Compliance		Total
	Yes	No	
Complete denial of illness	-	-	-
Slight awareness of illness	4	4	8
Awareness of being sick, attributing to external factor	3	11	14
Awareness that illness is due to something unknown	4	4	8
Intellectual insight without applying to future	29	8	37
True emotional insight & applies it in practice	30	3	33
Total	70	30	100

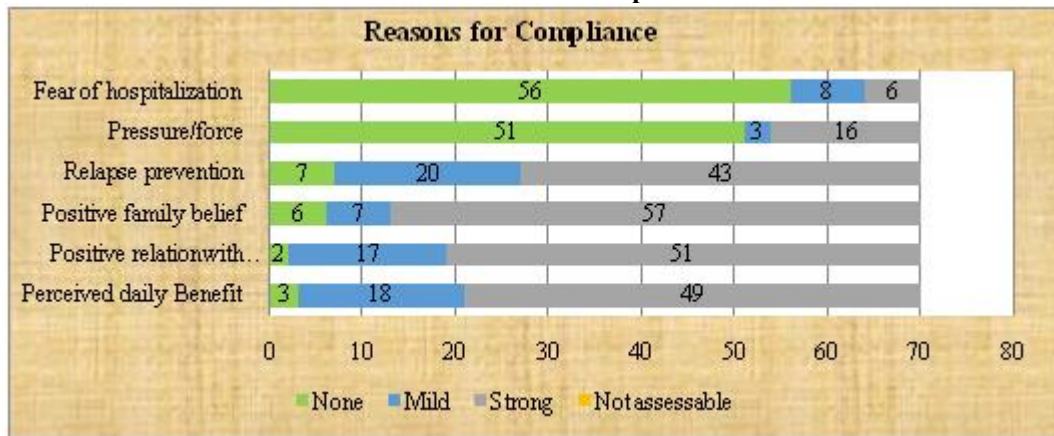
Chi-square = 26.88, P<0.0001

Insight level was categorized into 6 classes as depicted in table 2 which shows the  $\chi^2$  value of the level of insight and

compliance rate( $\chi^2=26.88$ ) is more than table value at level of significance  $<0.0001$ . This means that there is high association between level of insight and compliance rate

( $P<0.0001$ ). Higher level of insight is associated with better compliance rate.

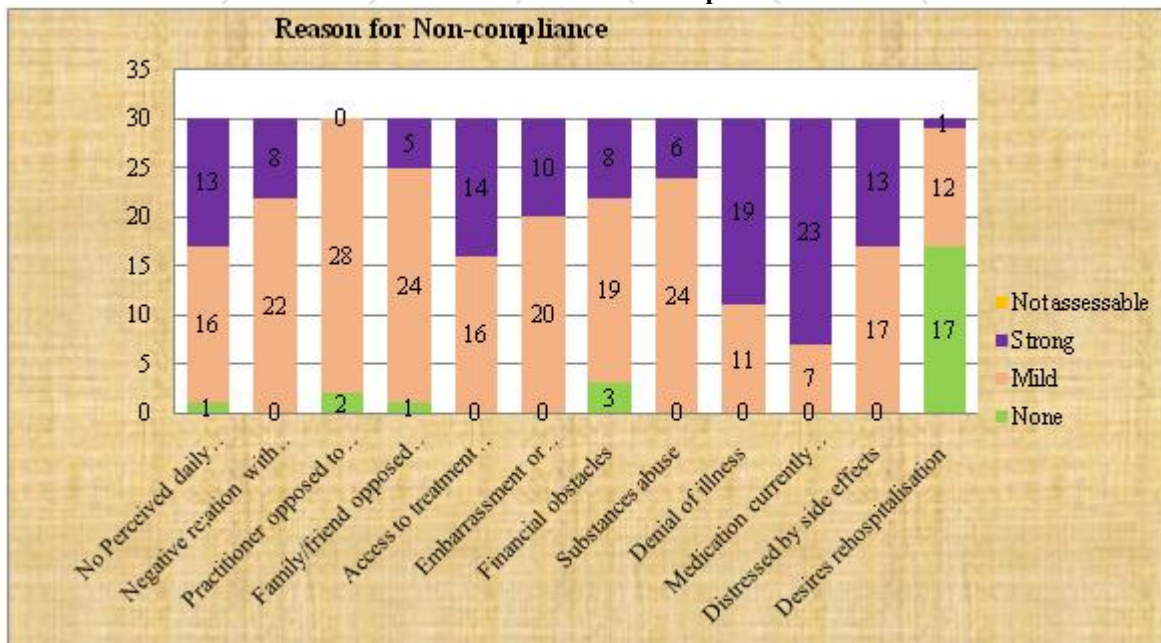
**Section 2: Rating of Medication Influences (ROMI)  
 Part 1: Reasons for Compliance**



It depicts the responses to the ROMI scale. It shows that major reasons cited for compliance which are significantly different among compliant and noncompliant groups are

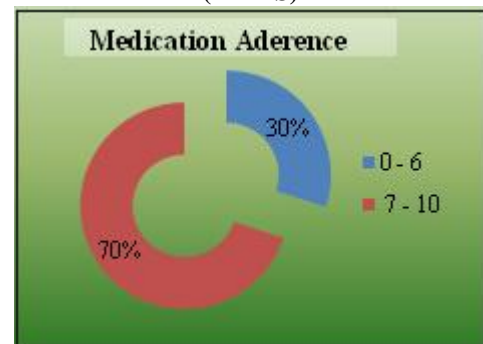
positive family belief, positive relations with prescribing clinician and perceived daily benefits.

**Part 2: Reasons for Noncompliance**



The data presented in figure above depicts the responses to the ROMI scale. It shows that major reasons of noncompliance which are significantly different among compliant and noncompliant groups are denial of illness; medication currently not required; accessibility problem and not perceived daily benefits.

**Section 3: The Medication Adherence Rating Scale (MARS)**



The figure above shows that as far as overall MARS score is concerned, the majority of samples (70 %) scored >6 and about one third of samples (30%) scored ≤6. A score of ≤6 is considered as a poor level of adherence which means that almost one third of the sample does not comply with medications

#### 4. Finding of the Study

The compliance rate in this study was found to be 70%. Patients belonging to joint family had better compliance rate than patients belonging to nuclear type of family. Patients with better insight were more compliant than patients with lower. Positive family belief was the most significant contributing factor to the compliance of medication in this study, which was followed by positive relation with the treating clinician, perceived daily benefits and relapse prevention. Denial of illness and medication currently unnecessary were the most common reason leading to noncompliance. Access to treatment, distressed by side effect, denial of illness and stigma faced by patients also stand as significant contributory reasons for non-compliance.

#### 5. Analysis

Descriptive statistics were used to analyse the sample characteristics. Chi square test was used for hypothesis testing. Association of selected variables and medication compliance was analysed using Chi square test. SPSS-16 software was used for data analysis.

#### 6. Discussion

The result of the study helped us to identify the factors which help in the medication compliance as well as non-compliance, which enable us to become more aware of problems faced by patients in maintaining a compliant behaviour thus preventing relapses and leading a more productive life. There is a need to provide adequate information about mental illness and medication prescribed, to enhance medication compliance and to develop community mental health care facilities for the awareness regarding the illness. Mental health professionals should be vigilant in detecting non-compliance among patients with schizophrenia and encourage them for medication compliance and regular follow up.

#### References

- [1] Schizophrenia. World Health Organization, Geneva. 2011
- [2] Adherence to Long-Term Therapies: Evidence for Action. Geneva: World Health Organization; 2003.
- [3] Popp Bianca-Stephanie, Manea M M, Moraru M O. Treatment adherence and social functioning in patients diagnosed with schizophrenia and treated with antipsychotic depot medication; Clujul Medical. 2014; 87 (2).
- [4] National Institute for Health and Clinical Excellence NICE. Core interventions in the treatment and

- management of schizophrenia in adults in primary and secondary care. National Clinical Guideline 82; 2010
- [5] Fenton W S, Blyler C R, Heinssen R K. Determinants of medication compliance in schizophrenia: empirical and clinical findings. Schizophr Bull. 1997; 23(4):637-651.
- [6] Aldebot S, Memani A G W. Denial and Acceptance Coping Styles and Medication Adherence in Schizophrenia. The Journal of Nervous and Mental Disease. 2009; 197(8): 580-584
- [7] Freudenreich Oliver, Cather Corinne. Antipsychotic medication non-adherence: Risk factors and remedies. FOCUS 2012; 10: 124-129.
- [8] Lacro J P et al. Prevalence of and risk factors for medication nonadherence in patients with schizophrenia: a comprehensive review of recent literature. J Clin Psychiatry. 2002; 63(10):892-909.
- [9] Atreja et al. Strategies to Enhance Patient Adherence: Making it Simple. Medscape General Medicine. 2005.<http://www.medscape.com/viewarticle/498339>  
[print](#)
- [10] Gupta S, Baby, R Sagar R. Attitudes and subjective reasons of medication noncompliance among outpatients with schizophrenia in India. The Internet Journal of Epidemiology. 2008; 7(1)