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FACTORS FOR NON-COMPLIANCE OF MEDICATION IN PATIENTS WITH PSYCHOTIC ILLNESS

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ABSTRACT: Non-compliance is a significant problem in all patient population, from children to elderly. It is a serious problem and has many effects on overall treatment and prognosis of the illness. In spite of recent progress in the treatment of psychosis during the last decades, non-compliance continues to be a frequent phenomenon, often associated to potentially severe clinical consequences and high costs. The contributing factors of non-compliance in psychotic disorders can be divided in medication-related and patient-related. It is closely related to treatment outcome. This article is intended to review various factors related to non-compliance and relationship between them.

KEYWORDS: Non-compliance, Psychotic illness, treatment.

INTRODUCTION: Noncompliance or Non-adherence is a complex phenomenon, with a wide variety of patterns.¹ It is the extent to which the patient's behavior (In terms of taking medications, following diets, or executing other lifestyle changes) coincides with medical recommendations.² It is considered to be preventable,³ make the study of this phenomenon a priority objective in psychiatry that includes both the associated risk factors and the efficacy of interventions aimed at reducing it.¹ As per the statistics given in health information of India, psychosis is the most common mental disorder among the patients treated in specialized mental hospital in India.⁴ In long term treatment, approximately half of the patients discontinue or use medications irregularly against doctor's advice.⁵ Poor adherence to psychiatric medication regimens is a major obstacle to the effective care of persons who have chronic mental illness.⁶

DEFINITIONS: Compliance has been defined as the extent to which a person's behaviour is in line with the medical advice given.⁷ The degree to which an individual follows medical advice is a major concern in every medical specialty.⁸ It is a complex phenomenon representing a patient's contribution to the management of illness.⁹ The difference between both concepts (Compliance and adherence) is minimal and essentially concerns the physician's degree of authority.¹⁰

Adherence is often considered to be "good", or patients are described as "adherent", if they are taking at least 70 or 80% of their medication.¹¹ The type of medication, formulation, dosage and dosage frequency, along with individual characteristics, such as absorption and metabolism, phase of illness and vulnerability to disease recurrence or progression, will influence the impact of specific levels of non-adherence. Therefore, definitions will and should vary depending upon the context.¹²

A modified version of the World Health Organization's operational definition for non-adherence defined non-adherence as 'missing medications three consecutive times, two times in a week, five times in a month or change in the dose of the medications without advice of the prescribing physician.'¹³

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Problem of Non-compliance in Psychotic Disorders: Adherence to treatment is often incorrectly seen only as a trait of the patient, or related to motivation or resistance, rather than as collaboration between the patient and a doctor.¹⁴ A good doctor-patient relationship is a crucial tool for successful treatment. In psychosis, the formation of this relationship is complex, especially if the patient is unaware of the psychotic illness. Having a poor relationship with the therapist, experiencing constraint during hospitalization and inadequate planning of the post-discharge period were reported to be risk factors for non-adherence.¹⁵ Chance of premature discontinuation was found to be less than half in patients who recalled being told to take the medication for at least 6 months compared with those not given this information.¹⁶ Estimated non-adherence rates in schizophrenia are about 50%, widely ranging from 4% (Observed with depot neuroleptic drugs) to 72%.¹⁵ The risk of psychotic relapse in patients with schizophrenia and schizoaffective disorder increases almost five times after 5 years, reaching 81.9%.¹ Poor treatment adherence may have a significant negative impact on treatment response in schizophrenic and schizoaffective patients.¹⁷

Non-compliance is closely related to treatment outcome.¹⁸ Reduced adherence weakens treatment benefits, especially when no alternatives are explored. Poor medication compliance is found to be almost certainly the single most important factor in poor treatment response.¹⁹

Studies evaluating compliance or adherence issues in psychiatry have focused on drug treatment, non-attendance in outpatient treatment and rehabilitation programs, and self-discharge from hospital against medical advice. Among patients with psychoses, non-adherence rates are particularly high, with reports ranging from 20 to 89 %.²⁰

Factors Related to Non-Compliance: The contributing factors of non-compliance in psychotic disorders can be divided in medication-related and patient-related.²¹ Most of the studies deal with schizophrenia and related disorders, and a few with unselected groups of psychotic patients.

Medication-related Factors: Problems in drug adherence include errors of omission, purpose, dosage and timing.²² A systematic review found that the number of doses prescribed per day was inversely related to adherence.²³ Medication compliance is reduced by complex treatment regimens²⁴ and by neuroleptic side-effects,²⁵ most notably akathisia²⁶ and akinesia.²⁷ Patients recently discharged from hospital may be careful with compliance, but this is likely to decline over time with the symptom relief.²⁸ At least half of people given antipsychotic drugs do not adhere to the treatment regimen prescribed, and this non adherence is a serious concern. Increasing a patient's knowledge about medication and dealing with side effects do not directly address a person's non-adherence to antipsychotic medication.

A negative change in the subjective state during medication has been associated with negative attitudes and impaired compliance.²⁹ Negative attitudes towards antipsychotic medication predict non-compliance.³⁰

The label, package or form of the medication or the type of drug may also alter medication compliance.³¹ For example in a sample of 35 studies the relapse rate during depot medication was lower compared to oral medication, this was considered due to compliance.³² On the other hand, a systematic meta-review showed no difference in relapse rates or adverse events between oral and depot forms, but a better global outcome with depot drugs.³³ In a review of 26 studies comparing depot and oral medications mean compliance rates were higher with depot medications.³⁴ Patients show more positive attitudes to depot medication compared with oral administration.³⁵

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Nevertheless, there is need for quality improvement with prescribing guidelines of depot medications.³⁶ Long-acting injections (LAIs) have been identified as a means of improving adherence,³⁷ and they may help to prevent relapse.³⁸ Half of patients who remained adherent to an antipsychotic LAI for 2 years relapsed during this period.³⁹

In the 18-month Clinical Antipsychotic Trials for Intervention Effectiveness (CATIE) study³⁹ a remarkable 74% of patients discontinued medication prematurely. The most common reasons for discontinuation were patient choice, lack of effect or intolerability of side-effects.

Atypical antipsychotic agents, such as clozapine, olanzapine, risperidone or quetiapine have shown superiority over conventional antipsychotic drugs by producing less extra pyramidal side-effects⁴⁰ and enhancing cognitive functioning.⁴¹ With regard to influencing factors on patients' attitude toward antipsychotic medication, several studies have shown that antipsychotic side effects (SE) can influence patient's attitudes and subjective well-being negatively.⁴²

So far the evidence regarding atypical antipsychotics and better compliance in schizophrenia has been inconclusive.⁴³ Pharmacological strategies which may enhance adherence include switching, dose adjustment, treating side effects, simplifying the treatment regimen, and the use of long-acting injections.¹³

Patient-Related Factors:

- a. **Socio Demographic Factors:** Supportive family environment has been reported to have a positive effect on compliance.⁴⁴ The family member's awareness of the patient's illness is also connected to better compliance.⁴⁵ Social activity has been related to more positive attitudes towards medication in outpatient care,⁴⁶ but to poorer compliance with long-term rehabilitation patients.⁴⁷ Living alone and poor housing⁴⁸ increases the risk of medication non-compliance. In most studies, gender has not been associated with compliance, but male patients had lower adherence compared with women in a skills training programme for chronic schizophrenia patients after relapse.⁴⁵

Demographic factors do not appear to be significant: non-compliance can be seen in all genders, ages and social. Family support, support of friends or having a consistent job also affects compliance.⁴⁹ Race, sex and socio-economic status are not consistent predictors of poor adherence.¹⁷ Stigma has also been associated with non-adherence in schizophrenia.¹³ regarding patient's age, younger patients show higher non-adherence rates than older ones.⁵⁰

Faith healers (9.61%), lack of family education (7.69%), were the most important psychosocial reasons for non-adherence to psychiatric medicines.⁵¹ Compliance from the family members is also a dependent factor in non-adherence as has been revealed. 7.76% of the patients discontinued the medication when there is lack of family compliance.⁵¹ Environments of poor familial and social support have been associated with non-adherence.¹

- b. **Symptoms and Course of Illness:** Certain symptoms or the course of a psychotic illness may affect compliance.²⁷ Delusional patients may interpret side-effects as particularly threatening or invasive.³⁴ In two follow-up studies delusions predicted non-compliance.⁵² Grandiose delusions and persecutory thoughts have been associated with high rate of non-compliance.⁵³ Non-compliant patients have been found to have a longer history of treatment than compliant patients²⁴, but not a longer duration of illness.⁵⁴ On the other hand about 7.69% of the non-adherent patient population did not follow medication due to feeling of getting addicted to psychiatric medicine.⁵¹

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Several cross-sectional studies link severity of psychopathology to medication non-adherence.⁵⁵ Patients with delusions of persecution or poisoning are more reluctant to take medication and those with delusion of grandeur already convinced that they need it.⁵⁶ Persistent psychotic symptoms may promote non adherence.¹ In the absence of other clear correlates or predictors of poor treatment adherence, the patients with schizoaffective disorder with more prominent schizophrenic-like characteristics are at a higher risk of poor adherence and need to be closely followed and monitored regarding this issue.⁵⁷

In a prospective study with a 2-year follow-up period on patients with psychotic disorders in their first hospitalization, higher baseline intensity of delusion and suspiciousness were associated with non-adherence during subsequent follow up.⁵⁸ Refusers had significantly higher BPRS ratings for conceptual disorganizations, grandiosity, hostility, uncooperativeness, unusual thought content, excitement, and elevated mood.⁵⁹

- c. **Quality of Life:** Non-adherence to antipsychotic medication may not only enhance distressing symptoms and the likelihood of relapse but also negatively influence the patient's quality of life and long-term prognosis.⁶⁰ Although there has been substantial emphasis on quality of life (QOL) as an outcome of mental health interventions,⁶¹ the literature on mental and other medical disorders provides scarce evidence of relationships between adherence and QOL.⁶² However, there are hints of indirect relationships between adherence and QOL in people with schizophrenia, e.g., via unwanted side effects,⁶³ level of functioning,⁶⁴ or attitude toward medication.⁶⁵ Overall, findings indicate that at present, there is no plausible explanatory model of adherence.

CONCLUSIONS: Problems with compliance are common in all areas of medicine. It is a significant problem in all patient population, from children to elderly. It applies to nearly all chronic diseases and tend to worsen as longer a patient continues on drug therapy. It is closely related to treatment outcome. Reduced adherence weakens treatment benefits, especially when no alternatives are explored. Poor medication compliance is found to be almost certainly the single most important factor in poor treatment response.

Being clinically common and crucial in relation to outcome, problems with compliance arise from multiple reasons. In psychotic disorders compliance involves specific factors, such as side-effects of anti-psychotic medication, and attitudes towards treatment. Most of the previous studies have focused on the weight of medication effects and side-effects. Rather than a person's level of knowledge about medication or side effects experienced, a person's attitude towards antipsychotics may have most significance in terms of non- adherence.

The results with some socio-demographic factors, especially living circumstances, need further studies to confirm the present findings. Most of the previous studies suffer from methodological shortcomings. These include insufficient study samples, lack of structured diagnostic and symptom assessments, and narrow-viewed designs and statistical analysis.

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