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**ORIGINAL ARTICLE**

# Medication Non-Compliance in Patients with Schizophrenia Due To Familial, Environmental and Socio-Cultural Factors

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## ABSTRACT

**Introduction:** In schizophrenia, non-compliance with treatment leads to the disease burden in the community. It is considered as a challenge worldwide due to the need for long-term treatment and additional associated factors in Schizophrenia.

**Aim:** The goal of the study is to identify patients with treatment non-compliance in schizophrenia and determine the related factors from environmental, socio-cultural and familial perspectives.

**Place and Duration:** The study was carried out at the department of Behavioral Sciences, PGMI /AMC / LGH Lahore, Pakistan, from November 2021 to April 2022.

**Methods:** The study included 100 patients with non-compliance to treatment in schizophrenia who visited the relevant psychiatric departments. For the research a descriptive cross-sectional design was chosen with non-random, purposive sample selection technique being utilised. Prior to the study, ethical approval from the authorities and informed consent from patients were obtained. Educated patients completed questionnaires whereas uneducated patients asked their relatives to provide such information on questionnaires.

**Results:** Out of 100 participants, 56 were males and 44 were females, with a ratio of 1.4:1. The participants mean age was 32.25 ± 11.1. About 23% of them were uneducated, and above sixty percent (61%) had a family income < 20,000 PKR rupees per month. A substantial percentage of family-members (15%) were unaware of their role and that of their family members, and the majority (77%) stated that people made a negative contribution. Factors contributing to treatment non-compliance included belief as a major life event (6%), perception about the disease being incurable (25%), lack of nearby treatment access (76%), migration (8%), forgetting an appointment with medical professional (18%), discontinuation of medication on the advice of a faith healer (16%), discontinuation of medication due to social stigma (14%), no follow-up being arranged (22%), and refusal to continue treatment (13%).

**Conclusions:** The study aimed to identify the possible reasons for medication non-compliance in patients of schizophrenia from environmental, socio-cultural and familial perspectives. Many factors have been recognised that contribute indirectly or directly to the treatment non-compliance.

**Keywords:** Non-Compliance, Compliance and Schizophrenia.

## INTRODUCTION

Schizophrenia is a chronic, disabling and complex disorder characterized by delusions, hallucinations, inconsistent speech or behavior, cognitive impairment, and negative symptoms (social withdrawal, loss of motivation, limited emotional expression and experience, affective flattening, poor speech, decreased hedonic capacity)[1-2]. It is associated with a lifetime prevalence of around 1% and tends to affect younger age groups[3-4]. Non-compliance is common in schizophrenia and represents the most important issue worldwide due to the necessity for long-term treatment and other associated aspects[5].

The patient's non-compliance with treatment is the degree to which the subject does not comply with the medical recommendations of the physician. There is no precise description of non-adherence in schizophrenia, but Zygmunt et al. proposed that non-compliance means stopping medication completely for at least a week[6-7]. Various factors related to non-compliance have been found in schizophrenia, including cultural, social, environmental and familial. The stigma associated with mental disorder is common in Pakistani society and has a robust influence on treatment compliance[8]. Previous research has found a relationship between non-compliance and a variety of factors such as insufficient knowledge of the need for long-term treatment, stigma related to illness, inadequate family support, financial hardship / poverty, lack of caregivers and lack of treatment resources in patients' local communities[9]. It can be discerned that the causes of non-compliance in schizophrenia are multifactorial[10], hence the need for their identification locally.

The aim of our study was to identify patients with treatment non-compliance with emphasis on highlighting factors responsible for this in patients with Schizophrenia as regards environmental, socio-cultural and familial perspectives.

## METHODS

The study included 100 patients with treatment non-compliance in schizophrenia. The research was descriptive, cross-sectional in nature conducted at the department of Mental Health and Behavioral Sciences, PGMI /AMC / LGH Lahore, Pakistan, from November 2021 to April 2022. The patients were selected using non-random, purposive sampling technique. The study included patients aged 18 and over who met the ICD-10 diagnostic criteria for Schizophrenia. Other inclusion criteria were the use of incorrect dosing and discontinuation of the treatment for seven days or more. Prior to the study, ethical approval was granted and informed consent from patients was obtained. Specific questionnaires were prepared based on previous published research for the purpose of the study, which educated patients completed themselves, otherwise the patients' relatives filled them out. The data were manually entered into the Social Science Statistical Package (SPSS-20) and then analyzed using descriptive statistics as percentage and frequency.

## RESULTS

More than half of the participants (56%) were men. The participants' mean age was 32.25 ± 11.1. About 23% of them were uneducated, and above sixty percent (61%) had a family income < 20,000 PKR rupees per month. A substantial percentage of the patients' family-members (15%) were unaware of their role (in supporting and caring for the patients) and the majority (77%) stated that people made a negative contribution (towards the treatment success).

Table-1: shows the patients demographic features

| Variables | Frequency | Percentage |
|---|---|---|
| Age | | |
| 18-25 years | 41 | 41 |
| 26-35 years | 25 | 25 |
| 36- years | 21 | 21 |
| >45 years | 13 | 13 |
| Gender | | |
| Male | 56 | 56 |
| Female | 44 | 44 |
| Occupations | | |
| Business | 19 | 19 |
| Agriculture | 15 | 15 |
| Daily wages | 12 | 12 |
| Service | 22 | 22 |
| Homemaker | 15 | 15 |
| Student | 17 | 17 |
| Educational Status | | |
| Illiterate | 23 | 23 |
| Literate | 77 | 77 |
| Family income | | |
| < 10000 PKR | 25 | 25 |
| 10000-20000 PKR | 36 | 36 |
| 20000-25000 PKR | 19 | 19 |
| >25000 PKR | 20 | 20 |
| Marital Status | | |
| Married | 51 | 51 |
| Unmarried | 38 | 38 |
| Widowed | 2 | 2 |
| Divorced | 9 | 9 |

Table 1 shows the sociodemographic features of the patients. Tables 2 and 3 show the family, environmental and socio-cultural factors related with non-compliance.

Table-2: shows the environmental, family and Socio-cultural factors ~~of~~ in schizophrenia

| Variables | Frequency | Percentage |
|---|---|---|
| Family members knowledge about illness | | |
| | 26 | 26 |
| Psychological | 15 | 15 |
| Physical | 49 | 49 |
| Mental | 10 | 10 |
| Other | | |
| Reason of disease | | |
| Disturbed brain chemicals | 29 | 29 |
| Heredity | 18 | 18 |
| Spirits | 9 | 9 |
| Mental trauma | 34 | 34 |
| Earlier life's deeds/sins | 7 | 7 |
| Others | 3 | 3 |
| Belief whether treatable | | |
| Yes | 75 | 75 |
| No | 25 | 25 |
| Role of families, relatives and neighbours | | |
| Yes | 85 | 85 |
| No | 15 | 15 |
| Negative contribution people (in the community) | | |
| Yes | 77 | 77 |
| No | 23 | 23 |
| On Yes response(n=77) | | |
| Ridiculed patient | 8 | 10.4 |
| Encourage for faith healing instead of drug therapy | 45<br>23 | 58.4<br>29.8 |
| Said drugs are habit forming | 44 | 57.1 |
| Treat pt. as inferior | 37 | 48.1 |
| Misleading the family | 35 | 45.5 |
| Said mental disease not ever be treated or cured | 14 | 18.2 |
| Over involvement, Critical comments, aggression of families | | |
| Any significant events of life results in stoppage of medicine | | |
| | 6 | 6 |
| Yes | 94 | 94 |
| No | | |
| History of migration | | |
| Yes | 8 | 8 |
| No | 92 | 92 |

Table-3: shows the mental health facilities and various other factors related to non-compliance

| Variables | Frequency | Percentage |
|---|---|---|
| Nearby mental health facility | | |
| Yes | | |
| No | 32 | 32 |
| | 68 | 68 |
| Mental health facility distance | | |
| ≤5 km | | |
| 6-10 km | 10 | 10 |
| 11-20km | 15 | 15 |
| 21--40km | 29 | 29 |
| >40km | 27 | 27 |
| | 20 | 20 |
| Time required to reach hospital | | |
| <1hr | 21 | 21 |
| 2-3hrs | 38 | 38 |
| 4-5hrs | 24 | 24 |
| >5hrs | 17 | 17 |
| Ever forget medical appointment | | |
| Yes | 18 | 18 |
| No | 82 | 82 |
| Stopped taking medicines as counselled of faith healer | | |
| Yes | 16 | 16 |
| No | 84 | 84 |
| Social stigma causes stoppage of treatment | | |
| Yes | 14 | 14 |
| No | 86 | 86 |
| Patients monitoring of medicines | | |
| Yes | 78 | 78 |
| No | 22 | 22 |
| Family response on treatment refusal | | |
| Mixed with food | 34 | 34 |
| Forcefully given | 28 | 28 |
| Abused | 11 | 11 |
| Discontinue treatment | 13 | 13 |
| Admit to hospital | 14 | 14 |

## DISCUSSION

About fifty percent of the schizophrenic patients remained untreated due to a variety of factors. The demographic results of the survey show that the majority of respondents (41%) are between 18 and 25 years old, and most of them (56%) are men. The study results were in line with previous studies in which younger people with schizophrenia, especially men, showed a higher rate of non-compliance. About 23% of them were uneducated, and above fifty percent (61%) had a family income < 10,000 PKR rupees per month. Previous studies investigating the relationship between treatment non-compliance and literateness have established that illiterate patients are more non-compliant with medications[10-11]. The financial difficulties and poverty are other non-compliance risk factors. The environmental, family and socio-cultural factors thus play an important part in the progression of schizophrenia[12]. About 1/5$^{th}$ members of the family are unaware of the disease, and many have misconceptions about the reasons for the development of the disease. Likewise, 1/5$^{th}$ members of the family thought that schizophrenia was an incurable disease. Understanding the patient and the disease and the relationship between them determine harmony[13-14].

A significant percentage of the family members did not have a clear idea about their role towards supporting patients and many mentioned that patients had never been treated for their mental illnesses. This is thought to be contributing negatively towards the disease prognosis and may encourage the role of faith healers, thus suboptimally managing the disorder.

Given these findings, it can be assumed that the relatives of the patients lack adequate knowledge about the disease and its consequences. A further hinderance regarding the treatment failure appears to be the people's attitudes towards mental illness and their cultural beliefs[16]. When family members behave in an overly-protective, hostile, and judgmental way, the likelihood of non-compliance and relapse increases. The knowledge and beliefs of family members about the disease are also very important in determining adaptation by the patients.

Many individuals thought that mental illness is synonymous with madness, the inability to stay in society and family, and even possession by the holy spirit or black magic[17-18]. The discrimination and stigmatization against people with severe mental disorder such as Schizophrenia and their families is communal. For this reason, a patient with mental disorder hesitates to seek proper counselling and treatment[19]. The lack of knowledge and stigma contributes to medication non-compliance for a psychiatric disorder. The study showed that, poor financial status, might cause medication poor compliance. Furthermore, treatment might be stopped prematurely due to lack of health education about the nature of the mental disorder[20-21]. This finding is in keeping with the research by Fleischhacker et al. who postulated that financially disadvantaged and poorly educated patients were more predisposed to relapse and treatment non-compliance[22]. In addition, due to the strong stigma associated with mental illness, people are hesitant to even openly buy medications. Such findings are not surprising in a community where people believe that mental diseases occur as ~~a~~ result of misfortune, and individuals mostly try to get support from local healers rather than mental health professionals[23-24].

## CONCLUSION

The above study highlighted a number of environmental, sociocultural and familial factors that might directly or indirectly be associated with medication non-compliance. Proper health education and awareness in the community coupled with financial incentives might help avoiding or reduce the issue of medication non-compliance in the community.

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