

**PREVALENCE AND FACTORS ASSOCIATED WITH TREATMENT NON-COMPLIANCE AMONG PATIENTS WITH MENTAL ILLNESS**Tharshiniya Remy S.<sup>1</sup>, Prof. Kalaiselvi R.\*<sup>2</sup>, Harish K.<sup>3</sup>, Elamaram R.<sup>4</sup> and Nafeesa N.<sup>5</sup><sup>1,3,4,5</sup>B.sc (Nursing) IVth Year, Chettinad College of Nursing, Chettinad Academy of Research and Education, Chettinad Hospital and Research Institute, Kelambakkam, Chengalpattu District, Tamilnadu, India.<sup>2</sup>Professor, HOD of Mental Health Nursing Department, Chettinad College of Nursing, Chettinad Academy of Research and Education, Chettinad College of Nursing, Chettinad Hospital and Research Institute, Kelambakkam, Chengalpattu District, Tamil Nadu, India.**\*Corresponding Author: Prof. Kalaiselvi R.**

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**ABSTRACT**

**Objectives/Aim:** Mental health determines how you think, feel and act. good mental health is when you feel positive about yourself and cope well with the everyday pressures. It Determine the prevalence of treatment non-compliance: To quantify the proportion of patients with mental illness who fail to adhere to their prescribed treatment plans, including medication regimens and therapy sessions. The main aim of this study is to gain a comprehensive understanding of the prevalence and factors associated with treatment non-compliance among patients with mental illness. **Method and Materials:** Descriptive research design was adopted for the study and 100 men and women with mental illness were selected at Psychiatry OPD department, CHRI by using a convenience sampling technique. Structured Interview Schedule was used to collect data. Descriptive and inferential statistics were adopted to analyze the data. **Conclusion and Result:** The prevalence and factors associated with treatment non-compliance among patients with mental illness are substantial challenges that require attention and action from the mental health community. The result of this current study shows that 83 % of patients with mental illness were non compliance to the treatment meanwhile 17 % of patient with mental illness were compliance to treatment. Significant association was found between the treatment non-compliance and the demographic variable including age and family monthly income at % level of significance ( $p < 0.05$ ) and no significant association was found between the remaining demographic variables.

**KEYWORDS:** Factors for treatment non compliance, Mental health problem, Mental illness, Non compliance, Prevalence for treatment non-compliance.

**INTRODUCTION**

Mental health determines how you think, feel and act. Good mental health is when you feel positive about yourself and cope well with the everyday pressures. If you experience issues dealing with everyday problems, it could be a sign of a mental health problem and should be addressed immediately.

Mental health problems are a growing public health concern. Worldwide, one in four people in the will be affected by mental, or neurological disorders at some point in their lives and around 450 million people currently suffer from such conditions, placing mental disorders among the leading causes of ill-health and disability globally. Depressive disorders are already the fourth leading cause of the global disease burden. They are expected to rank second by 2020, behind ischemic heart disease, but ahead of all other diseases.

Medications are an essential treatment modality of mental disorders. There is limited scientific literature on medication non-adherence among patients in Severe Mental Disorders with respect to patient-related factors. The current study explores the factors associated with medication non-adherence in such patients. (Papiya ghosh, 2022).

Noncompliance rates in schizophrenia vary widely, ranging from 20% to 89%. Various reasons have been cited in literature for noncompliance. These include poor insight, side effects of medicines, poor remission of symptoms, and poor therapeutic alliance. It also includes stigma associated with the illness, poor family support, ignorance about need to continue treatment, and economic reasons. In addition, when patients improve, they may not feel the need to continue medications anymore. In Indian studies, noncompliance has been found to be related to lack of knowledge, financial

difficulties, side effects, and no improvement. Distance to hospital, lack of caregivers, poor insight, and lack of time have also been cited as reasons for noncompliance. It is also reported that there is high prevalence of substance abuse in schizophrenia in non-compliant patients. (k Nagaraja Rao 2017).

Medication adherence among patients with severe mental disorders is a complex issue determined by a multitude of factors, such as treatment effect, patient insight, attitudes toward medication, financial and emotional support from family members, income situation, side effects, cultural context, level of therapeutic alliance with therapists, and aftercare environment after discharge. With respect to China, a shortage in the mental health workforce has also been observed by Xiang et.al., which may contribute to medication non-adherence. Moreover, according to the World Health Organization (WHO)'s report in 2018, a lack of mental health resources, including mental health facilities, government expenditure on mental health, and the mental health workforce, is a prominent issue worldwide that negatively impacts rates of medication adherence.

However, to the best of our knowledge, only two qualitative studies had focused on mental health professionals' attitudes towards medication adherence, with one conducted in rural China and the other conducted in 4 European countries (England, Germany, Italy and the Netherlands). Thus, qualitative research that explore their perspectives on medicine adherence is key to tackling this issue comprehensively. China, one of the world's most rapidly developing countries, also faces a serious mental health burden, of which severe mental disorder constitute a significant part. In China, lifetime prevalence of schizophrenia, bipolar disorder and major depressive disorder have reached 0.7, 0.6 and 3.4%, respectively. A meta-analysis, however, reported that the treatment rate of schizophrenia in psychiatric institutions was only 31% It implies that nearly 70% of schizophrenia patients did not receive.

## MATERIALS AND METHODOLOGY

The quantitative cross sectional survey approach and descriptive research design were adopted to conduct the study in selected hospital. 100 Patients who presented with mental illness of schizophrenia, BPAD, depression and anxiety disorders were selected by convenience Sampling technique and excluded the patients with mental illness who are presenting for the first time visit, uncooperative and with severe cognitive impairment/Mental sub normality/ acute psychosis. The structured interview schedule which includes demographic variables and Treatment adherence rating scale and factors associated with treatment noncompliance check list. The demographic variable that consist of age, gender, occupational status, type of family, educational status, area of residence, marital status and family monthly income, availability of support

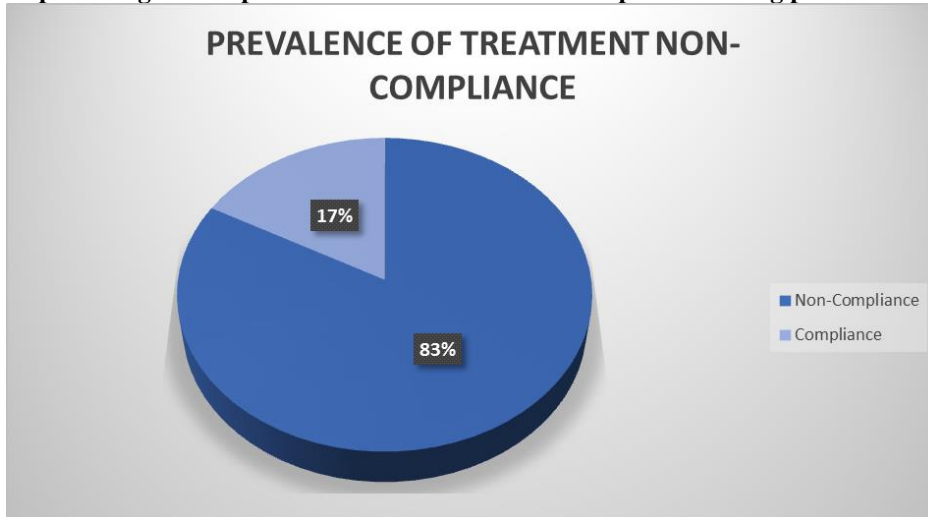
system, duration of mental illness, any family member affected with mental illness, duration of treatment, frequency of changing the consultant, age of onset of psychiatric illness, type of mental illness and number of medication intake per day. Treatment adherence rating scale consist of 10 items includes yes and no options which is scored as 0,1. Factors associated with treatment noncompliance check list consists of 31 items includes yes and no options and stratified into 4 domains such as illness related factors, medication related factors, family related factors and economic related factors which is scored as 0,1 respectively.

## RESULTS

### 1. Frequency and percentage of factors for treatment non-compliance with selected demographic variable of patients with mental illness

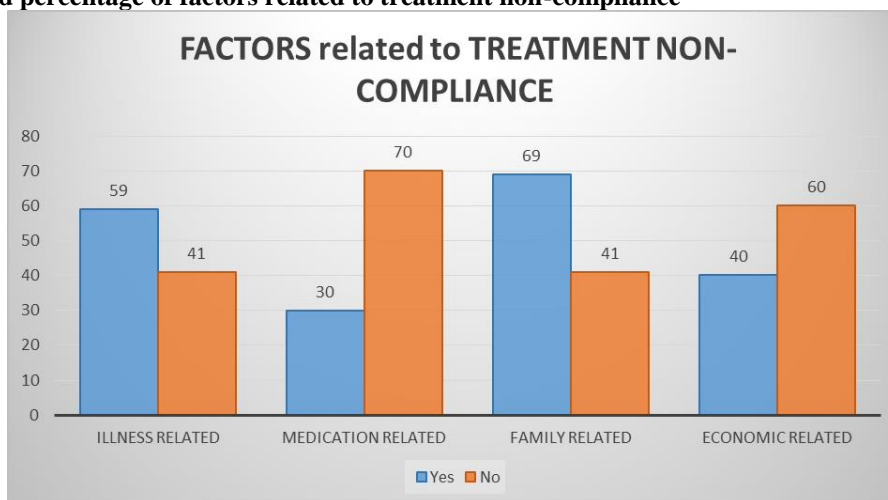
This study shows that nearly 35% of samples between the age group of 31-40 years, 51% samples were female, based on occupational status 58% of samples were homemaker/unemployed, 71% samples were nuclear family, based on the educational status 51% of samples had degree and above, based on area of residence 46% of samples were in semi-urban area, based on marital status 63% of samples were married, based on family monthly income 51% of samples were between 10,000-20,000, based on availability of support system 91% of samples had support system, based on duration of mental illness 51 % of samples had mental illness around 6 months - 3 years, 92% of sample's family members were not affected with mental illness, based on duration of treatment 63% of samples were under treatment for 6 months-3 years, based on frequency of changing the consultant nearly 44% of samples were changed the consultant 1-2 times, based on the onset of psychiatric illness 84% of the samples had the age of >18 years as the onset of psychiatric illness, based on the type of mental illness most of the samples had depression 76%, 38% of samples intake 3 and above medication per day.

**2. Frequency and percentage of the prevalence of treatment non-compliance among patients with mental illness.**



This figure shows that 83% of samples were treatment non-compliance and only 17% of samples were treatment compliance.

**3. Frequency and percentage of factors related to treatment non-compliance**



This figure shows that 59% of samples responded yes and 41% of samples responded no to the illness related factors. About 70% of samples responded no and 30% of samples responded yes to the medication related factors.

Around 69% of samples responded yes and 41% of samples responded no to the family related factors. About 60% of samples responded no and 40% of samples responded yes to the economic related factors.

**4. Association between prevalence of non-compliance and demographic variable of patients with mental illness.**

S.NO	DEMOGRAPHIC VARIABLE	P VALUE	X <sup>2</sup>	SIGNIFICANCE
1.	Age (in years)	0.007	14.225	NS
2.	Gender	0.374	0.791	NS
3.	Occupational status	0.713	1.369	NS
4.	Type of family	0.967	0.002	NS
5.	Educational status	0.810	0.965	NS
6.	Area of residence	0.966	0.070	NS
7.	Marital status	0.264	2.664	NS
8.	Family monthly income (in rupees)	0.020	7.791	S
9.	Availability of support system	0.155	2.026	NS
10.	Duration of mental illness	0.617	0.966	NS
11.	Any family member affected with mental illness	0.182	1.781	NS
12.	Duration of treatment	0.923	0.159	NS

13.	Frequency of changing the consultant	0.611	1.817	NS
14.	Age of onset of psychiatric illness	0.858	0.307	NS
15.	Type of mental illness	0.688	0.748	NS
16.	Number of medication intake per day	0.329	2.226	NS

Significant association was found between the treatment non-compliance and the demographic variable including age and family monthly income at % level of

significance ( $p < 0.05$ ) and no significant association was found between the remaining demographic variables.

#### 5. A) Association between illness related factors for treatment with selected demographic variable of patients with mental illness.

S.NO	DEMOGRAPHIC VARIABLE	P VALUE	X <sup>2</sup>	SIGNIFICANCE
1.	Age (in years)	0.097	7.855	NS
2.	Gender	0.008	6.989	S
3.	Occupational status	0.534	2.192	NS
4.	Type of family	0.320	0.989	NS
5.	Educational status	0.854	0.779	NS
6.	Area of residence	0.407	1.798	NS
7.	Marital status	0.615	0.971	NS
8.	Family monthly income (in rupees)	0.284	2.516	NS
9.	Availability of support system	0.168	1.904	NS
10.	Duration of mental illness	0.239	2.861	NS
11.	Any family member affected with mental illness	0.061	3.502	NS
12.	Duration of treatment	0.045	6.182	S
13.	Frequency of changing the consultant	0.030	8.936	S
14.	Age of onset of psychiatric illness	0.506	1.361	NS
15.	Type of mental illness	0.650	0.861	NS
16.	Number of medication intake per day	0.775	0.510	NS

Significant association found between illness related factors for treatment with selected demographic variable of patients with mental illness including gender, duration of treatment, frequency of changing the consultant at 5%

level of significance ( $p < 0.05$ ) and no significant association was found between the remaining demographic variables.

#### 6. B) Association between medications related factors for treatment with selected demographic variable of patients with mental illness.

S.NO	DEMOGRAPHIC VARIABLE	P VALUE	X <sup>2</sup>	SIGNIFICANCE
1.	Age (in years)	0.690	2.249	NS
2.	Gender	0.967	0.002	NS
3.	Occupational status	0.455	2.617	NS
4.	Type of family	0.192	1.702	NS
5.	Educational status	0.698	1.431	NS
6.	Area of residence	0.155	3.724	NS
7.	Marital status	0.554	1.180	NS
8.	Family monthly income (in rupees)	0.827	0.380	NS
9.	Availability of support system	0.254	1.302	NS
10.	Duration of mental illness	0.240	2.854	NS
11.	Any family member affected with mental illness	0.201	1.636	NS
12.	Duration of treatment	0.758	0.555	NS
13.	Frequency of changing the consultant	0.002	14.510	S
14.	Age of onset of psychiatric illness	0.835	0.360	NS
15.	Type of mental illness	0.267	2.637	NS
16.	Number of medication intake per day	0.115	4.331	NS

Significant association was found between medication related for the treatment with selected demographic variable of the patient with mental illness including age

of onset of psychiatric illness at 5% level of significance ( $p < 0.05$ ) and no significant association was found between the remaining demographic variables.

### 7. C) Association between families related factors for treatment with selected demographic variable of patients with mental illness.

S.NO	DEMOGRAPHIC VARIABLE	P VALUE	X <sup>2</sup>	SIGNIFICANCE
1.	Age (in years)	0.314	4.752	NS
2.	Gender	0.736	0.114	NS
3.	Occupational status	0.251	4.098	NS
4.	Type of family	0.439	0.599	NS
5.	Educational status	0.338	3.371	NS
6.	Area of residence	0.645	0.876	NS
7.	Marital status	0.208	3.145	NS
8.	Family monthly income (in rupees)	0.848	0.330	NS
9.	Availability of support system	0.787	0.073	NS
10.	Duration of mental illness	0.531	1.266	NS
11.	Any family member affected with mental illness	0.946	0.005	NS
12.	Duration of treatment	0.925	0.156	NS
13.	Frequency of changing the consultant	0.662	1.590	NS
14.	Age of onset of psychiatric illness	0.143	3.883	NS
15.	Type of mental illness	0.720	0.658	NS
16.	Number of medication intake per day	0.668	0.808	NS

No any significant association was found between demographic variables of patients with mental illness. families related factors for treatment with selected

### 8. D) Association between economic related factors for treatment with selected demographic variable of patients with mental illness.

S.NO	DEMOGRAPHIC VARIABLE	P VALUE	X <sup>2</sup>	SIGNIFICANCE
1.	Age (in years)	0.256	5.316	NS
2.	Gender	0.917	0.011	NS
3.	Occupational status	0.706	1.400	NS
4.	Type of family	0.561	0.337	NS
5.	Educational status	0.498	2.377	NS
6.	Area of residence	0.237	2.880	NS
7.	Marital status	0.012	8.837	S
8.	Family monthly income (in rupees)	0.018	8.029	S
9.	Availability of support system	0.217	1.527	NS
10.	Duration of mental illness	0.822	0.391	NS
11.	Any family member affected with mental illness	0.894	0.018	NS
12.	Duration of treatment	0.874	0.270	NS
13.	Frequency of changing the consultant	0.130	5.643	NS
14.	Age of onset of psychiatric illness	0.109	4.424	NS
15.	Type of mental illness	0.602	1.015	NS
16.	Number of medication intake per day	0.573	1.112	NS

Significant association was found between economic related factors for treatment with selected demographic variable of patient with mental illness including marital status, family monthly income at 5% level of significance ( $p < 0.05$ ) and no significant association was found between the remaining demographic variables.

## DISCUSSION

### 1. Frequency and percentage of factors for treatment non-compliance with selected demographic variable of patients with mental illness

Nearly 9 % of samples were between the age group of 18-20 years and 35% of samples between the age group of 31-40 years. Most of the samples were female 51% and 41% of samples were male. Based on occupational status 58% of samples were homemaker/unemployed and

1% of sample was involved in daily wages. Most of the samples were nuclear family (71%) and 29% of samples were joint family. Based on the educational status 51% of samples had degree and above and only 3% of samples had no formal education. Based on area of residence 46% of samples were in semi-urban area and only 22% of samples were in rural area. Based on marital status most of samples were married (63%) and only 1% of sample was divorced/separated. Based on family monthly income 51% of samples were between 10,000-20,000 and only 14% of samples were gained <10,000. Based on availability of support system most of the samples had support system (91%) while 9% of samples had no support system. Based on duration of mental illness 51 % of samples had mental illness around 6 months - 3 years and only 13 % of samples had mental

illness around 3-5 years. Nearly 92% of sample's family members were not affected with mental illness and only 8% of sample's family members were affected with mental illness. Based on duration of treatment nearly 63% of samples were under treatment for 6 months-3 years and only 11% of samples were under treatment for 3-5 years. Based on frequency of changing the consultant nearly 44% of samples were changed the consultant 1-2 times and only 4% of samples were changed the consultant 3-4 times. Based on the onset of psychiatric illness nearly 84% of the samples had the age of >18 years as the onset of psychiatric illness and only 1% of sample had the onset of psychiatric illness at birth. Based on the type of mental illness most of the samples had depression 76% and 7% of samples had BPAD. Nearly 38% of samples intake 3 and above medication per day and 30% of samples intake 2 medication per day.

## 2. Frequency and percentage of factors associated with treatment non-compliance among patients with mental illness

Most of the mental illness patient were compliance to treatment (n=83) is 83% and non-compliance to treatment (n=17) is 17%.

The study finding is supported by the study Medication nonadherence and its associated factors in psychiatric patients in India: A systematic review and meta-analysis conducted by Parthasarathy Ramamurthy, Arya Jayasree, Susan Solomon, VishnuVRudravaram, Vikas Menon, and Pradeep Thilakan, The aim of this study was to determine the prevalence of Medication Non Adherence among patients with psychiatric disorders in India and to identify the factors associated with Medication Non Adherence.

Findings of factors associated with medication non adherence (MNA) in psychiatric patients by Ansari, 2020;

In patient related factors, Education and marital status associated with MA – Age, gender, domicile, and occupation not associated with MA; Greater internalized stigma negatively correlated with MA.

In disease related factors, Greater severity of OCD negatively correlated with MA – Age of onset, duration of illness, and duration of treatment not associated with MA.

In social and economic related factors, Monthly family income not associated with MA.

Since  $I^2$  was greater than 75%, substantial heterogeneity was assumed and hence random-effects model was used for estimating the pooled prevalence. The pooled prevalence of MNA in psychiatric patients was found to be 0.44 (95% CI, 0.37-0.52). A high degree of heterogeneity was noted ( $I^2 = 94\%$ ). Among studies conducted on schizophrenia and other psychotic disorder

patients, the pooled prevalence of MNA was found to be 0.37 (95% CI, 0.28-0.46). Similarly, the pooled prevalence of MNA in bipolar disorder and depressive disorder patients were 0.47 (95% CI, 0.23-0.72) and 0.70 (95% CI, 0.60-0.78), respectively.

## 3. Frequency and percentage of factors for treatment non-compliance with selected demographic variable of patients with mental illness

In illness related factors, nearly 91% of samples were responded yes to the question “are you aware of the mental illness?” while 9% of samples were responded no. Most of the samples 91% were responded yes to the question “are you aware about importance to continue the treatment?” and the remaining 9% of samples were responded no. Based on the question, “do you have difficulty to come for treatment for long duration?” most of the samples 61% were responded as no and only 39% of samples were responded as yes. Nearly 52% of samples were responded as no to the question “have you ever experienced a fear of relapse?” and 48% of samples were responded yes. Most of the samples 79% were responded no to the question “are you denying that you are patient?” and 21% of samples were responded as yes. Nearly 81% of samples were responded as no to the question “do you lack in knowledge about treatment?” and only 19% of samples were responded as yes. Based on the question, “are avoid the feeling of being sick?” 72% of samples were responded as yes and 28% of samples were responded as no. Most of the samples 90% were responded as yes to the question “do you have trust in the current treatment?” and only 10% of samples were responded as no.

In medication related factors, most of the samples 86% were responded as no to the question “do you have any difficulty to get medication when you need it?” and only 14% of samples were responded as yes. Nearly 88% of samples were responded as no to the question “do you avoid take medication because of side effects?” and only 12% of samples were responded as yes. Based on the question, “do you have difficulty to take multiple doses in a day?” 81% of samples were responded as no and only 19% of samples were responded as yes. Nearly 88% of samples were responded as no to the question “are you thinking that symptoms are not subsiding with the medicine?” and 12% of samples were responded as yes. Based on the question, “are medicine ease to swallow?” 97% of samples were responded as yes and only 3% of samples were responded as no. Nearly 97% of samples were responded as yes to the question “are medicine easy to follow up?” and only 3% of samples were responded as no. Most of the samples 91% were responded no to the question “have you taken any other treatment?” and only 9% of samples were responded as yes. Nearly 70% of samples were responded as no to the question “do you have any fear or concern that others will come to know about the consumption of psychiatric medication?” and 30% samples were responded as yes. Nearly 85% of samples were responded as no to the question “are you

using old prescription and taking medication once in a while?" and 15% of samples were responded as yes. Most of the samples 98% were responded as no to the question "are you having anxiety regarding medication side effect on sexual functioning?" and only 2% of samples were responded as yes.

In family related factors, Nearly 97% of samples were responded as yes to the question "do you have family support?" and only 3% of samples were responded as no. Based on the question, "is there positive attitude of family/friends?" 89% of samples were responded as yes and only 11% of samples were responded as no. Nearly 71% of samples were responded as no to the question "do your family members have any fear that others will come to know about mental illness?" and 29% of samples were responded as yes. Nearly 65% of samples were responded as no to the question "is there any stigma of relapse?" and 35% of samples were responded as yes. Based on the question, "are you encouraged by others to follow the treatment?" 52% of samples were responded as yes and 48% of samples were responded as no.

In economic related factors, most of the samples 98% were responded as no to the question "do you get free medicine?" and 2% of samples were responded as yes. Nearly 61% of samples were responded as yes to the questions "are you affordable to purchase the medications?" and 39% of samples were responded as no. Nearly 79% of samples were responded as no to the question "is there less frequency of follow-up?" and 21% of samples were responded as yes. Most of the samples 82% were responded as yes to the question "do you have ample of time to attend OPD?" and only 18% of samples were responded as no. Nearly 56% of samples were responded as yes to the question "is it less distance to hospital?" and 44% of samples were responded as no. Nearly 64% of samples were responded as no to the question "are you bored of taking long term medicine?" and 36% of samples were responded as yes. Most of the samples 77% were responded as no to the question "are you getting treatment by proxy?" while 23% of samples were responded as yes.

#### **4. Association between treatment non-compliance with selected demographic variable of patients with mental illness**

Significant association was found between the treatment non-compliance and the demographic variable including age and family monthly income at 5% level of significance ( $p < 0.05$ ) and no significant association was found between the remaining demographic variables.

#### **5. Association between the factors related to non compliance and demographic variables**

##### **A) Illnesses related factors**

Significant association found between illness related factors for treatment with selected demographic variable of patients with mental illness including gender, duration

of treatment, frequency of changing the consultant at 5% level of significance ( $p < 0.05$ ) and no significant association was found between the remaining demographic variables.

##### **B) Medications related factors**

Significant association was found between medication related for the treatment with selected demographic variable of the patient with mental illness including age of onset of psychiatric illness at 5% level of significance ( $p < 0.05$ ) and no significant association was found between the remaining demographic variables.

##### **C) Families related factors**

No any significant association was found between families related factors for treatment with selected demographic variables of patients with mental illness.

##### **D) Economic related factors**

Significant association was found between economic related factors for treatment with selected demographic variable of patient with mental illness including marital status, family monthly income at 5% level of significance ( $p < 0.05$ ) and no significant association was found between the remaining demographic variables.

#### **CONCLUSION**

The prevalence and factors associated with treatment non-compliance among patients with mental illness are substantial challenges that require attention and action from the mental health community. The result of this current study shows that 83 % of patients with mental illness were non-compliance to the treatment meanwhile 17 % of patient with mental illness were compliance to treatment. Significant association was found between the treatment non-compliance and the demographic variable including age and family monthly income at % level of significance ( $p < 0.05$ ) and no significant association was found between the remaining demographic variables. This study emphasizes the need for a holistic approach to mental health care, one that considers not only the medical aspects of treatment but also the psychological, social, and healthcare system factors that influence patients' adherence behavior. By addressing these factors and implementing evidence-based interventions, we can strive towards improving treatment compliance, enhancing patient outcomes, and ultimately, fostering a better quality of life for individuals living with mental illness.

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