Introduction

Medication adherence is a cluster of behaviour simultaneously affected by multiple factors that determine the extent to which a person's taking of medication corresponds with agreed-upon recommendations from a health-care provider. It differs from compliance which is the extent to which a patient follows medical advice. The WHO stated that non-adherence is a worldwide problem affecting not only psychiatric patients but also with most chronic physical illnesses. Adherence to medications is said to drop significantly after six months. Non-adherence to psychotropic drugs is one of the greatest challenges in the treatment of people with mental illness. There are varying estimates of medication adherence within the psychiatric population based on disease states (Major depressive disorder: 28-52%, bipolar disorder 20-50%, schizophrenia: 20-72% and anxiety disorders 57%). Studies shows that between 50 percent and 75 percent of mentally ill patients do not adhere to their medications

Non-adherence is associated with increased symptoms, deterioration of functioning, suicide, violence and rehospitalisation. Non-adherence is a hidden factor and difficult for clinicians to discern. It is highly recommended that clinicians must take time to discuss the possible side effects of medications with their patients as this could reduce the rate of non-adherence.

Causes of non-adherence

Adherence to medications is affected by many factors such as patients, treatment, social, cultural and economic factors. Patients factors could be intentional or unintentional. Intentionally, patients may discontinue their medications due to side effects, stigma, inconvenience, cost or availability. Unintentionally, it could be due to forgetfulness, not understanding the instructions, poor insight into their illness, severity of the illness or age related cognitive impairment. Treatment related factors may include duration of medication, polypharmacy, poor doctor patient relationship, poor communication and inadequate follow up. Economic and social factors include lack of money,
lack of transportation, poor social support, religious or cultural reasons. An understanding of the prevalence and risk factors contributing and sustaining non-adherence will go a long way in addressing the problem with the aim of reducing it.

**Aims**
The research aimed at using a validated and reliable tool to assess medication adherence through identifying the adherence level of our psychiatric out-patient population, and to identify factors responsible for non-adherence. Thirdly, we aimed at identify the various diagnoses mostly associated with non-adherence.

**Materials and Methods**
This study was conducted at the psychiatry department of Jos University Teaching Hospital, Jos, Nigeria. The department runs daily clinics on weekdays with referral area spanning over 9 of the 36 states of Nigeria. It serves as primary, secondary and tertiary centre because of its location and cost, being affordable to both the rich and poor. It also serves as training centre in psychiatry for resident doctors in psychiatry, family medicine, internal medicine and medical students.

All consecutive patients attending the clinics between November 2016 and December 2016 were considered for recruitment. Informed consent was sought for and obtained prior to inclusion in the study.

Two questionnaire, the Medication Adherence Rating Scale (MARS) and a questionnaire to obtain information about clients adherence and attitude towards their various medications. MARS was developed in 1999 by Thompson et al as a self-report measure of adherence mainly targeting psychiatric patient population. The validity and reliability of MARS has been found to be adequate across studies. The MARS focuses on adherence and patients attitude towards their medications such as forgetting, being careless, if discontinuing medications makes them well or more unwell, effect of medication on them, and believes about the medication preventing them from getting sick again. The clients questionnaire inquires about their diagnosis, current medication and dosage, factors leading to non-compliance, side effects of the drugs, personal belief about medication, stigma, family pressure and whether they feel their non-adherence was a direct effect or consequence of their illness. It aims at getting more insight into their non-adherence through interview. Data was analysed using SPSS version 21.

**Results**
Majority of the participants were male, 105(46.2%) with 90(47.7%) being females. The age range was 18-75 years with a mean age of 36.5±12. more than a third of the participants were unemployed.

The various diagnosis recorded were Schizophrenia 55(28.2%), Bipolar affective disorder (BAD), 52(26.7%), Major depressive disorder (MDD), 42(21.5%), Drug related cases 22(11.3%), Seizure disorders 14(7.2%), Dementia 7(3.6%) and Anxiety disorders 3(1.5%).

**Fig 1: Diagnostic categories recorded**

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Majority 88(45.1%) of the participants attributed their illness to spiritual causes, 48(24.6%) to medical causes, 19(9.7%) as due to frustration in life while 19(9.7%) rationalized it as the will of God. The various medications prescribed included atypical antipsychotics 37(19.0%), typical antipsychotics 25(12.8%), and mood stabilizers combination 39(20.0%) combination of two psychotropic medications (depot and typical) 8(4.1%), more than two antipsychotics 20(10.3%), tricyclic antidepressants 24(12.3%). Selective serotonin re-uptake inhibitors 21(10.8%) and antiepileptic 21(10.8%). Only 64(32.8%) of the participants reported full adherence with their prescriptions. Factors associated with non adherence in the study were lack of finance 53(27.2%), absence of symptoms 29(14.9%), side effects of medication 19(9.7%), being tired of swallowing pills 17(8.7%) and total denial of their illness 13(6.7%). Over a third of the participants reported feeling stigmatized 67(34.4%) or being under unnecessary family pressure 65(33.3%).

The various side effects reported were weight gain 39(20.0%), sleep disturbances 31(15.9%), extra pyramidal side effects 28(14.4%), suicidal thoughts 13(6.7%), sexual disturbances 13(6.7%), menstrual irregularities 5(2.6%) and aggression 3(1.5%).

The Medication adherence rating scale (MARS) revealed a lot about the overall attitude of the participants towards medication. Almost half of the participants 89(45.6%) forgets their medication, 49(2.5%) were careless about their medication, 67(34.4%) stop after feeling better, 55(28.2%) take their drugs only when they feel sick, 67(34.4%) believe their medication makes them feel unnatural.

More than half 111(56.9%) said their thoughts become clearer with medication and that their medication prevents them from falling sick 113(57.9%). However 66(33.8%) said the medication makes them feel like a zombie and 86(44.1%) said it makes them sluggish. Concerning the overall MARS score, 97(49.7%) had a total score of >6 while 98(50.2%) scored <6. A score of <6 generally is generally considered poor adherence level.

Correlating the various diagnosis with the adherence levels revealed the following level of non-adherence schizophrenia(65.5%), drug related cases(50.0%), Bipolar affective disorder(36.5%), Major depressive disorder(38.1%) and anxiety disorders(33.3%). Seizure disorder(28.6%) and dementia(28.6%).
Discussion
The treatment of mental illnesses commonly include the long term use of medications. Taking medications correctly may seem a simple or personal matter but non-adherence is a complicated and common problem. The findings revealed a gap between subjective and objective rates of adherence. The patients attitude towards medications were not very encouraging. This could not be totally unconcerned with large belief that their illness were spiritual rather than medical. This is also not forgetting the fact that a large proportion of the respondents reported financial difficulties as a major contributor to their non-adherence. The findings on adherence within the psychiatric population based on their disease states were similar to previous findings. The rate of side effects to the prescribed medications and its contributory role to poor adherence is quite significant. The perceived stigma level of the participants is quite high.

It is highly recommended that clinicians must take time to discuss the possible side effects of medications with their patients as this could reduce the rate of non-adherence. They also need to simplify the dosage regime and must emphasize that adherence is very important for their recovery. Addressing the issue of stigma with clients and their relatives could improve adherence. The limitation of the study may be the use of only one instrument in assessing the adherence rate of the participants. Secondly, being a cross-sectional study, it is subject to report bias.

References