

Comparing Adherence in Cardiac Clinic Versus General Outpatient Clinic: Few Concerns and Way Forward

Dear Sir,

We read the article titled “antihypertensive medications adherence among Nigerian hypertensive subjects in a specialist clinic compared to a general outpatient clinic.”^[1] The study discusses the role of special clinic on adherence to medication among hypertensive patients. Adherence to medication has impact on treatment outcomes and the prevention of complications. As per rule of halves, only 12.5% of hypertensive patients are treated adequately, there are lacunae in diagnosing and treating hypertensive patients due to inefficiencies in the health system. Even among those 12.5% of hypertensive patients, patient-level factors play an important role in the adherence to the advice of healthcare providers. Hence, there is a need to assess patient’s adherence to medication and its associated factors to plan for targeted interventions toward individuals with poor adherence. There is an advocacy toward setting up special clinics for non-communicable diseases, and many developing countries have adopted this strategy. Since this study compares patient-level outcomes on adherence in special clinic versus general outpatient clinic, the study results will be of great use to policymakers in deciding on appropriate intervention. However, we have to take into account few issues before considering the study findings.

Though the authors mention from where the patients were recruited, it would have been better if the study setting was elaborately described. Information on the availability of services and patient load per provider were not mentioned, and these differences in special clinic and general outpatient clinic may have impact on the adherence level. It would have been better if authors had mentioned the total number of hypertensive patients treated in both the clinics and the proportion willing to participate. Furthermore, comparing the characteristics of non-respondents in each clinic would have given more credibility to the results by justifying against selection bias. Since the authors mention their main aim was to find the difference in adherence between these two modalities, sample size should have been estimated. Otherwise the study should have included all the eligible participants in the study setting.

In the results section under Table 1, authors have used *t*-test to compare the determinants across various levels of adherence. Since adherence was categorized into three levels, one-way ANOVA with appropriate *post-hoc* tests would have been the appropriate statistical method. Using *t*-test between any two groups among the three increases type 1 error, resulting in erroneous conclusions. Since the determinants, such as duration of hypertension, monthly income, and blood sugar level, are not following the normality assumptions for *t*-test, nonparametric tests would be appropriate. To negate confounding effects and identify the independent effect of special clinic on adherence, multivariate regression including important variables would have served the purpose. As Morisky Medication Adherence Scale-8 (MMAS-8) is not an interval scale, the mean score cannot be compared by *t*-test as illustrated in Table 3 of the article.^[2] It is ideal to categorize into a nominal variable as validated under MMAS-8 and compare across the clinic type as shown in Table 2.

In general, facility-based studies pose a threat of “social desirability bias” in assessing adherence as patients tend to hide poor adherence from healthcare provider. As this study was conducted in a health facility, the possibility of desirability bias cannot be ruled out. MMAS-8 is an established reliable and valid tool to measure adherence for antihypertensive medication. As self-reported MMAS-8, questionnaire is not validated in Nigerian population (language), this may have an effect on measuring adherence. Alternate ways to assess the adherence in an objective way include chemical analysis, medication possession ratio, and pill count.^[3] Though chemical analysis is the most appropriate one, it may not be feasible in resource limited settings. In a study among Spanish hypertensive patients, non-adherence was captured better using pill count as compared to validated questionnaires which intend to measure adherence.^[4] Pill refilling status and pharmacy claims are the intermediate options left between subjective and more objective methods. Details on pill refills could be easily extracted from appropriately maintained drug registers. With increase in use of hospital information systems globally in the last decade, integrating pharmacy registers with individual patient electronic records will help in measuring the adherence in an objective manner.

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Conflicts of interest

There are no conflicts of interest.

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References

1. Akintunde AA, Akintunde TS. Antihypertensive medications adherence among Nigerian hypertensive subjects in a specialist clinic compared to a general outpatient clinic. *Ann Med Health Sci Res* 2015;5:173-8.
2. Morisky DE, Ang A, Krousel-Wood M, Ward HJ. Predictive validity of a medication adherence measure in an outpatient setting. *J Clin Hypertens (Greenwich)* 2008;10:348-54.
3. Krousel-Wood M, Islam T, Webber LS, Re RN, Morisky DE, Muntner P. New medication adherence scale versus pharmacy fill rates in seniors with hypertension. *Am J Manag Care* 2009;15:59-66.
4. Perseguer-Torregrosa Z, Orozco-Beltrán D, Gil-Guillen VF, Pita-Fernandez S, Carratalá-Munuera C, Pallares-Carratalá V, *et al.* Magnitude of pharmacological nonadherence in hypertensive patients taking antihypertensive medication from a community pharmacy in Spain. *J Manag Care Spec Pharm* 2014;20:1217-25.

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