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## Evaluation of medication adherence in Lebanese hypertensive patients



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**Abstract** Controlling hypertension is essential in cardiovascular diseases. Poor medication adherence is associated with poor disease outcomes, waste of healthcare resources, and contributes to reduced blood pressure control. This study evaluates treatment adherence to antihypertensive therapy in Lebanese hypertensive patients by estimating the proportion of adherent hypertensive patients using a validated tool and investigates what factors predict this behavior. A questionnaire-based cross-sectional study was conducted on a random sample of 210 hypertensive outpatients selected from clinics located in tertiary-care hospitals and from private cardiology clinics located in Beirut. Adherence level was measured using a validated 8-item Modified Morisky Medication Adherence Scale (MMMAS). Among 210 patients, 50.5% showed high adherence, 27.1% medium adherence, and 22.4% low adherence to medication. Mean *MMMAS* score was  $6.59 \pm 2.0$ . In bivariate analyses, having controlled blood pressure ( $p = 0.003$ ) and taking a combination drug ( $p = 0.023$ ) were predictors of high adherence. Forgetfulness ( $p < 0.01$ ), complicated drug regimen ( $p = 0.001$ ), and side effects ( $p = 0.006$ ) were predictors of low adherence after multiple linear regression. Logistic regression results showed that calcium channel blockers ( $p = 0.030$ ) were associated with increased adherence levels. In conclusion, developing multidisciplinary intervention programs to address the factors identified, in addition to educational strategies targeting healthcare providers, are necessary to enhance patient adherence.

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