Abstract
There are limited studies on quantifying the impact of patient satisfaction with pharmacist consultation on patient medication adherence. Objectives: The objective of this study is to evaluate the effect of patient satisfaction with pharmacist consultation services on medication adherence in a large managed care organization. Methods: We analyzed data from a patient satisfaction survey of 6,916 patients who had used pharmacist consultation services in Kaiser Permanente Southern California from 1993 to 1996. We compared treating patient satisfaction as exogenous, in a single-equation probit model, with a bivariate probit model where patient satisfaction was treated as endogenous. Different sets of instrumental variables were employed, including measures of patients’ emotional well-being and patients’ propensity to fill their prescriptions at a non-Kaiser Permanente (KP) pharmacy. The Smith-Blundell test was used to test whether patient satisfaction was endogenous. Over-identification tests were used to test the validity of the instrumental variables. The Staiger-Stock weak instrument test was used to evaluate the explanatory power of the instrumental variables. Results: All tests indicated that the instrumental variables method was valid and the instrumental variables used have significant explanatory power. The single equation probit model indicated that the effect of patient satisfaction with pharmacist consultation was significant (p<0.010). However, the bivariate probit models revealed that the marginal effect of pharmacist consultation on medication adherence was significantly greater than the single equation probit. The effect increased from 7% to 30% (p<0.010) after controlling for endogeneity bias. Conclusion: After appropriate adjustment for endogeneity bias, patients satisfied with their pharmacy services are substantially more likely to adhere to their medication. The results have important policy implications given the increasing focus on the roles of pharmacists and regulatory changes in professional scope of practice.

Keywords
Patient Satisfaction, patient compliance, pharmacists, United States.