The Medication Compliance Intervention Study

1. *Burge SK, White D, Bajorek E, Bazaldua O, et al. Correlates of Medication Knowledge and Compliance: Findings from RRNeST.* **Family Medicine** *2005; 37 (10): 712-718.*

Background: Medication adherence is a complex phenomenon, influenced by a variety of factors. Most adherence research focuses on one medicine and does not represent the realities of family medicine. This analysis examined factors associated with medication knowledge and adherence in family medicine patients with chronic conditions.

Methods: The Residency Research Network of South Texas (RRNeST) enrolled 150 patients with chronic disease who "sometimes have trouble taking medicines." 75% were Latinos. This cross-sectional analysis used baseline survey data from an intervention study. Investigators correlated medication knowledge and adherence with known predictors - patient, health, medication, economic, and physician factors. New variables related to patients' motivation to change treatment behaviors ("importance" and "confidence") were also included.

Results: Linear regression analysis demonstrated that patient satisfaction, education level, and confidence were associated with better medication knowledge. Higher confidence, Spanish language, better functional and health status, and more prescription medicines were correlated with medication adherence.

Conclusions: We recommend that family physicians enhance medication adherence by providing good information about treatment and counseling strategies to build patients' confidence. Our findings suggest that poor health status can be a barrier to, rather than a motivator for, treatment adherence.

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2. *Burge SK, Bazaldua O. Changes in chronic disease measures: the influence of patient characteristics and a brief intervention for medication adherence.* **Annual Meeting of the North American Primary Care Research Group,** *Quebec City. October 2005.*

Context: Interventions to improve medication adherence generally focus on one medication or a single condition; however in primary care, physicians routinely manage multiple medications and comorbidities.

Design: This nonrandomized controlled trial enrolled 91 patients (51 control, 40 treatment) from 18 family physicians in 6 residency programs. This analysis included medical record data collected one year prior to and one year following enrollment, and survey information collected on enrollment day.

Participants: were adult outpatients who had hypertension, hyperlipidemia, and/or type 2 diabetes and "had trouble taking their medicines."

Intervention: Physicians delivered a brief health behavior change intervention to improve medication adherence; telephone followup reinforced the message.

Main Outcome Measures: Examining pre- and post-enrollment measures of lipids, blood pressure, and HbA1c, investigators classified patients' changes in chronic disease measures as "poor& quot; (got worse or stayed bad) versus "satisfactory" (improved or remained good).

Results: In bivariable analyses, the intervention showed little effect on chronic disease outcomes. However, gender, ethnicity, income, patient satisfaction, and social desirability were associated with disease changes ($p<.05$). Logistic regression assessed significant predictors of changes in lipids, blood pressure, and HbA1c. The intervention variable was forced into each model. Lower income, higher social desirability, Hispanic ethnicity, female gender, and lower patient satisfaction predicted satisfactory changes in one or more conditions. Examining Hispanics only (77% of sample), the intervention and social desirability predicted satisfactory lipid changes. Being unmarried predicted satisfactory changes in HbA1c and all-conditions. Examining women only (70% of sample), self-reported adherence, Hispanic ethnicity, older age, and nonmarried status predicted satisfactory changes in one or more conditions.

Conclusion: Brief interventions for medication adherence had little influence on outcomes in this study. Instead, individual, family, and cultural factors were associated with important changes in chronic disease measures.