Effectiveness of a patient-tailored, pharmacist-led intervention program to enhance adherence to antihypertensive medication: the CATI Study

D.M. van der Laan, P.J.M. Elders, C.C.L.M. Boons, G. Nijpels, L. van Dijk, J.G. Hugtenburg.

Background Non-adherence to medication is a complex health care problem. In spite of substantial efforts, up till now little progress has been made to effectively tackle the problem with adherence-enhancing interventions.
Purpose To investigate the effectiveness of a patient-tailored, pharmacist-led and theory-driven intervention program aimed to enhance self-reported adherence to antihypertensive medication.
Method A parallel-group randomized controlled trial in 20 community pharmacies with nine months follow-up was conducted. Patients (45-75 years) using antihypertensive medication and considered non-adherent based on both pharmacy dispensing data and a self-report questionnaire were eligible to participate. The intervention program consisted of two consultations with the pharmacist to identify participants? barriers to adhere to medication and to co unsel participants in overcoming these barriers. The primary outcome was self-reported medication adherence. Secondary outcomes were beliefs about medicines, illness perceptions, quality of life and blood pressure. Mixed-model and generalized estimating equation analyses were used to assess overall effects of the intervention program and effects per time point.
Findings 170 patients were included. No significant differences between intervention and control groups were found in self-reported adherence, quality of life, illness perceptions, beliefs about medicines (concern scale) and blood pressure. In the subgroup analysis in which we only included participants with ?3 barriers identified during the first consultation, a significant intervention effect was found on self-reported medication adherence after nine months (mean difference 0.84 [95% CI: 0.03 to 1.65], p=0.042). After nine months, intervention participants had significantly stronger beliefs about the necessity of using their medicines as compared to control participants (mean difference 1.25 [95% CI: 0.27to 2.24], p=0.012).
Conclusion We do not recommend to implement the intervention program in the current form for this study population. Future studies should focus on how to select eligible patient groups with appropriate measures in order to effectively target adherence-enhancing interventions. Study populations with more severe non-adherent behavior and more barriers to adhere to medication, might benefit more from interventions, which is also confirmed by the more positive results of our subgroup analyses.