

A PILOT INTERVENTION TO IMPROVE MEDICATION ADHERENCE IN
NONADHERENT INFLAMMATORY BOWEL DISEASE PATIENTS

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Abstract

Background: Medication nonadherence in inflammatory bowel disease (IBD) can lead to suboptimal control of the disease, decreased quality of life, and poorer outcomes. This pilot study evaluated the feasibility, intervention mechanism, and potential effectiveness of a three-month continuous self-improvement (CSI) intervention to enhance medication adherence in adult nonadherent IBD patients.

Methods: Adult IBD patients taking a daily or twice-daily dosed maintenance medication were screened for two months to determine baseline medication adherence levels. Adherence was monitored electronically. Nonadherent IBD participants were randomized to receive either the CSI intervention or the attention control intervention and then monitored for three-months. The CSI intervention consisted of a data evaluation and system refinement process in which personal system changes were identified and implemented. The attention control group was given only educational information regarding IBD disease process, extra-intestinal manifestations of IBD, and medical therapy actions and side effects. Demographic statistics, change scores for within and between-group differences, and effect size estimates were calculated.

Results: Nine nonadherent participants (medication adherence score $<.85$) were eligible for randomization. The intervention was found to be feasible and acceptable. System thinking scores trended in the anticipated direction. Although no statistically significant improvement in medication adherence was found ($p=0.14$), medication adherence improved in 3 of 4 of the CSI

group and only 1 of 2 in the attention control group. The effect size calculation of 1.9 will determine the sample size for future study.

Conclusions: The results of this pilot study showed the intervention was feasible and had a positive effect on the medication adherence change score and on adherence levels. A larger fully powered study is needed to test of the effectiveness of this innovative intervention.

Key Words: adherence, IBD, intervention