

Use of telephone intervention did not improve adherence to osteoporosis medication regimen

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Telephone motivational counseling sessions did not result in a statistically significant improvement in adherence to an osteoporosis medication regimen, according to a report published Online First by *Archives of Internal Medicine*, one of the JAMA/Archives journals.

Osteoporosis and osteopenia are associated with more than 2 million fractures every year in the United States at an estimated cost of \$19 billion. Improving adherence to osteoporosis [drug regimens](#) is a public health priority because these medications have been shown to reduce [fracture risk](#), researchers write in their study background.

Daniel H. Solomon, M.D., M.P.H., of Brigham and Women's Hospital, Boston, and colleagues conducted a one-year randomized controlled clinical trial to examine the effectiveness of a telephone-based counseling program based on motivational interviewing, which is a client-centered method involving the stages-of-change model of [health behavior](#).

Participants were recruited from a large pharmacy benefits program for [Medicare beneficiaries](#) with 1,046 patients randomized to the telephone-based counseling program and 1,041 in a control group that received education materials in the mail. The mean (average) age was 78 years and 93.8 percent of the patients were female.

"Subjects in the intervention arm did not experience a statistically significant increase in median MPR (medication possession ratio), a well-accepted measure of adherence, compared with controls," the authors comment.

During the 12 months of follow-up, the median MPR was 49 percent in the intervention group and 41 percent in the control group, the authors report.

However, the effectiveness of the intervention appeared to differ modestly across several of the subgroups, the researchers note. For example, the intervention was associated with improvement in MPR for those patients age 65 to 74 years (median MPR for the intervention group was 48 percent; for the control group it was 31 percent) compared with little improvement for those patients 75 or older (median MPR for the [intervention group](#) was 49 percent; for the [control group](#), 46 percent). The intervention also appeared more effective among patients without a previous fracture, and the intervention produced somewhat larger effects among white patients than nonwhite patients.

"Although our results were not statistically significant, we demonstrated that a relatively simple intervention has the potential to achieve modest improvements in medication adherence, particularly in select prespecified subgroups," the authors conclude.

In an editorial, Seth A. Berkowitz, M.D., and Kirsten L. Johansen, M.D., of the University of California, San Francisco, write: "As we think about future directions for motivational interviewing, and interventions that seek to produce behavior change as a whole, it is worth noting that the effect sizes of almost all interventions have been rather modest, and there is likely no 'magic bullet' in the behavior change arsenal in general or for increasing treatment adherence specifically. This does not mean, however, that the effects may not be clinically significant."

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