The Value of Randomization for Evaluating Employee Wellness Programs[†]

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Reif et al. evaluated a randomized controlled trial (RCT) of the iThrive wellness program, which was part of the Illinois Workplace Wellness Study and was modeled on typical employee wellness programs that follow best practices.[1] The program ran for two years, a time horizon over which prior studies have argued effects can emerge.[2] Yet after 24 months, biometrics, medical diagnoses, and medical use did not significantly differ between the treatment and control groups.[1] Another evaluation of the same RCT found no significant effects on medical spending, productivity, health behaviors, or self-reported health after 30 months.[2] These findings align with those of another recent and large RCT of workplace wellness.[3]

Pesis-Katz et al. point out that these findings do not necessarily imply that wellness programs in general fail to improve employee health or reduce medical use.[4] They note that employee wellness program designs vary substantially and point to a recent observational study that found a positive correlation between wellness program participation and improved cardiovascular health. While we completely agree that a different intervention could produce different results, we believe that observational studies of wellness programs—which compare employees who voluntarily choose to participate to those who do not—are not reliable for evaluating program effectiveness or establishing best practices.

The Illinois Workplace Wellness Study demonstrates how observational study designs can lead to flawed conclusions about wellness programs. A key challenge for observational studies of wellness programs is that wellness program participants and non-participants are likely to have very different health profiles. In the case of iThrive, those who voluntarily chose to participate *were healthier to begin with*, as compared to those who chose not to participate. We showed in prior work that an observational regression analysis of our data yields incorrect results, even after adjusting for differences between participants and non-participants using a comprehensive set of baseline risk factors.[2,5] The Illinois Workplace Wellness Study demonstrates that research design matters and that more researchers

should use strong causal research designs like randomized evaluations to study workplace wellness programs.

Raymond notes that Reif et al. do not report 2016 (baseline) biometric screening outcomes.[6] We omitted these outcomes because the 2016 biometric screening was part of the randomized intervention and thus was not offered to members of the control group. Raymond further notes that 2017 outcomes are not valid baseline values because first-year activities could have improved health outcomes in the treatment group. We agree. We do not use 2017 outcomes as baseline values; rather, the comparison of biometric outcomes in 2017 between the treatment and control groups describes the causal effects of the wellness program after one year. Finally, Raymond suggests that effects may emerge beyond the two years we examine in our study. We are continuing to collect data to evaluate longer-run effects.

References

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