Digital health intervention does not lower heart attack risk

May 18 2016

In a study published online by *JAMA Cardiology*, Sonia S. Anand, M.D., Ph.D., F.R.C.P.C., of McMaster University, Hamilton, Ontario, Canada, and colleagues examined whether a digital health intervention using email and text messages designed to change diet and physical activity would improve heart attack risk among a South Asian population.

People who originate from the Indian subcontinent, known as South Asians, have an increased risk for premature myocardial infarction (MI; heart attack) compared with white individuals. Few interventions have been designed and tested to lower the risk for MI in this high-risk ethnic group. With advances in technology, behavioral interventions can be delivered to high-risk populations using email, web-based strategies, mobile phone applications, and text messages.

In this study, South Asian men and women 30 years or older and living in Ontario and British Columbia who were free of cardiovascular disease were randomly assigned to a digital health intervention (DHI; n = 169) or control condition (n = 174). The goal-setting DHI used emails or text messages and focused on improving diet and physical activity that was tailored to the participant's self-reported stage of change (participant's motivation to make health behavior changes). The change in an MI risk score (based on factors such as blood pressure, waist to hip ratio, hemoglobin A1c level) from baseline to 1 year was the primary outcome for the study. Participants were also provided information regarding their genetic risk for MI.

The researchers found that the DHI using motivational messages and health tips was not effective in reducing the MI risk score. Knowledge of genetic risk was not a motivator for behavior change.

"Future trials should consider using more frequent text messaging and have bidirectional communication with participants," the authors write.

More information: *JAMA Cardiology*. Published online May 18, 2016; DOI: 10.1001/jamacardio.2016.1035

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