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Lifestyle medicine as a component of personalized medicine

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Abstract

Lifestyle medicine (LM) is the use of lifestyle interventions for the treatment and prevention of disease. Effective lifestyle interventions are highly dependent on an individual's unique clinical and environmental factors. Techniques and tools that can identify this information can lead to more effective strategies and outcomes. One such program has developed and implemented several LM tools to personalize a program for individuals with diabetes and those at risk for cardiovascular disease (CVD). The Cardiovascular and Diabetes Risk Reduction Program at Creighton University has developed the Composite Lifestyle Index (CLI), Lifestyle Journal, Healthy Lifestyle Activities booklet, LM Intervention Identifier, a process to effectively prevent and manage chronic conditions, and uses a commercially available motivation profiler to personalize programs. The employee health-based program has demonstrated the following results (baseline vs. one-year) in 63 individuals (19 male/44 female, 52.2 years) who have completed at least one year of intervention: decreased general CVD 10-year risk (-2.02%, P=0.017); decreased estimated heart age (-2.7 years, P=0.004); increase self-reported general health (+20.6%, P<0.01); increased exercise (+156%, P<0.001); increase fruit/vegetable consumption (+39%, P<0.001); decreased stress (P=0.006); improved medication adherence (+15%, P<0.001); improved work productivity (+56%, P<0.05); and a 4:1 return on investment. Developing a highly personalized LM program can be used with genomic information in individuals that demonstrate a higher-than-average risk of developing diabetes and CVD. Individuals may experience long-term benefit from making preventive lifestyle choices that will help counteract biological risk.

Biography

Tom Lenz, PharmD is Associate Professor and Clinical Director of the Cardiovascular and Diabetes Risk Reduction Program at Creighton University in Omaha, Nebraska, USA. Dr. Lenz is a Fellow in the American College of Lifestyle Medicine, a member of the editorial board for the American Journal of Lifestyle Medicine and has published 4 books and over 75 journal articles in the area of lifestyle medicine, cardiovascular disease and pharmacy practice.

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