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'Life's Simple 7' Programme Reduces Risk of Heart Failure

According to current estimates, one in four middle-aged adults who live to age 85 will develop heart failure. Health experts advocate intervention programmes to improve lifestyles but the question is: do these lifestyle change interventions really work? Investigators in U.S. and Taiwan evaluated independent programmes designed to reduce cardiovascular risk. The results are reported in *The American Journal of Medicine*.

The team of American investigators led by Aaron R. Folsom, MD, of the Division of Epidemiology & Community Health, School of Public Health, University of Minnesota evaluated the American Heart Association's (AHA) Life's Simple 7 Programme to determine the benefits of the programme. The study showed that greater adherence to AHA's programme in middle age is associated with a lower lifetime occurence of heart failure and greater preservation of cardiac structure and function.

Healthmanagement.org contacted lead investigator Aaron R. Folsom for further input on the programme and its benefits. Dr. Folsom pointed out that "relatively few (30.4%) met at least 4 of the 7 goals, and this proportion was lower in African Americans than in whites." He also reiterated that "health care providers should do all they can to encourage patients to maintain optimal risk factor levels, as doing so could help many to avoid heart failure (and other cardiovascular diseases)."

When asked to comment on the impact of the programme on patients with diabetes, Dr. Folsom told *Healthmanagement.org* that avoiding diabetes is part of the Life's Simple 7 goals, so their study did not separately look at benefits of the other goals for diabetics. However, he pointed out that other studies have shown that optimal risk factor levels, as recommended by the AHA Simple 7 programme, will reduce diabetics' risk of cardiovascular complications.

He explained that the study shows that adherence to AHA's Life's Simple 7 in middle age can reduce lower lifetime occurrence of heart failure and can preserve cardiac structure and function. Life's Simple 7 programme describes ideal, intermediate, and poor levels of cardiovascular disease risk factors or behaviors: smoking, body mass index, physical activity, diet, total cholesterol, blood pressure, and fasting serum glucose. The Atherosclerosis Risk in Communities (ARIC) Study has also documented that the number of ideal Simple 7 factors achieved is inversely associated with later incidence of total cardiovascular disease, heart failure, and cancer. However, to date no publication has addressed the degree to which the programme could lower lifetime heart failure risk or preserve cardiac structure and function in old age.

This study was conducted with 13,462 adults aged 45-64 years in 1987-1989. From 1987-1989 risk factor measurements, a Life's Simple 7 score (range 0-14, scoring two points for ideal, one point for intermediate, and zero points for poor components) was created. 2,218 incident heart failure events were identified and 4,855 participants were echocardiographed free of clinical cardiovascular disease in 2011-2013, from which they quantified left ventricular hypertrophy and diastolic dysfunction. 25 percent of the participants developed heart failure through age 85 years, but the risk was just 14.4% for those with an optimal middle-age Life's Simple 7 score of 10-14 compared with 26.8% for participants with a score of 5-9 (average), and 48.6% for a score of 0-4 (inadequate).

"The bottom line is that many adults could avoid developing heart failure (and other cardiovascular diseases) if they could adhere to Simple 7 guidelines to optimise risk factors," Dr. Folsom told *Healthmanagement.org.*

Source: Elsevier Health Services

Image Credit: American Heart Association

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