

# Community-based prevention programs improve psychological, heart health

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Intensive community-based lifestyle interventions tailored to individuals and focused on psychological health can significantly reduce multiple risk factors for heart disease in low-income and minority women, according to research presented today at the American College of Cardiology's 61st Annual Scientific Session. The Scientific Session, the premier cardiovascular medical meeting, brings cardiovascular professionals together to further advances in the field.

Scientific evidence has shown that high [levels of anxiety](#), depression and stress independently predict heart disease, yet according to researchers these [lifestyle factors](#) are not commonly addressed by [health care providers](#) as they relate to [heart disease risk](#), particularly among low-income and minority women.

"Heart disease is largely preventable, but many of these women are easily lost within the current healthcare system due to language, cultural and time barriers. Several of the traditional [risk factors for heart disease](#), including obesity, high blood pressure, diabetes and psychological stressors tend to be more prevalent among this population as well," said Lauren Gray Gilstrap, MD, resident in internal medicine, Massachusetts General Hospital, and the study's lead investigator. "It's important that we find a better approach to identify risk and intervene early in this traditionally underserved group."

To assess the impact of a comprehensive [lifestyle change](#) on psychological and heart health among low-income and minority women,

researchers studied 64 women between the ages of 40 and 60 who had two or more risk factors for cardiovascular disease. All participants had a low household income, and at least half of the women were minority or non-English speaking.

These women were enrolled in the Heart Awareness and Primary Prevention in Your Neighborhood Heart Program (HAPPY Heart) — a community-based program aimed at helping women achieve healthier lifestyles through screenings and aggressive primary prevention techniques such as exercise, nutrition, smoking cessation and stress reduction. Participants were cared for over a two-year period by a multidisciplinary medical team that included a primary care physician, cardiologist, nutritionist, physical therapist and a personal health coach who helped them tailor their program and address any potential barriers to success. Participants underwent blood pressure, cholesterol and diabetes screenings and treatment, and were also offered stress reduction classes in yoga, tai chi, aerobic exercise, and individual and group support for anxiety and depression. Researchers used validated psychological tools to measure anxiety, depression and stress at the beginning of the study and the end of years one and two.

Women enrolled in the program experienced significant decreases in anxiety, depression and stress during the first year of the study. By the end of year two, the levels had decreased even further: anxiety, depression and stress. Improvement in anxiety levels over time was significantly associated with decreases in HbA1c—a measure of diabetes control—and BMI over the same time period.

Researchers also found that higher baseline levels of anxiety, depression and stress were associated with higher baseline LDL cholesterol levels. In addition, higher baseline depression and stress scores were associated with less improvement in HbA1c during the first year of follow-up.

"Our study highlight is that it's possible to treat all of these risk factors in one package deal, and that there's almost a synergistic effect when you're able to treat both traditional cardiovascular risk factors and psychological factors at the same time," said Dr. Gilstrap. "By catching these [risk factors](#) early, we can actually help women make significant changes that can reduce their risk for [heart disease](#) over the next twenty to thirty years."

Provided by American College of Cardiology

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