

# Perceived discrimination increased the risk of worse health outcomes after a heart attack

October 31 2022

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A study of more than 2,600 young heart attack survivors younger than age 55 found that those who reported more perceived discrimination in their day-to-day lives had a higher risk of worse outcomes in the year

after a heart attack, according to preliminary research to be presented at the American Heart Association's Scientific Sessions 2022. The meeting, held live in Chicago and virtually, Nov. 5–7, 2022, is a premier global exchange of the latest scientific advancements, research and evidence-based clinical practice updates in cardiovascular science.

Perceived [discrimination](#) refers to the perception of being treated unfairly in day-to-day interactions because of personal characteristics, such as race, gender, ethnicity or [socioeconomic status](#). Previous research suggests that perceived discrimination is associated with several [risk factors](#) for heart attack, however, little is known about the association between discrimination and health status outcomes after a heart attack.

"Perceived discrimination acts as a chronic stressor that adversely impacts cardiovascular disease through increased stress levels and inflammation," said Andrew Arakaki, M.P.H. and a doctoral candidate in the department of chronic disease epidemiology at the Yale School of Public Health in New Haven, Connecticut. "Perceived discrimination is also associated with other psychosocial factors, such as low social support and distrust in the [health care system](#), which may affect patients' recovery after a heart attack."

The researchers examined [health data](#) for participants in the [VIRGO](#) (Variation in Recovery: Role of Gender on Outcomes of Young AMI Patients) study to analyze post-heart attack health outcomes, including chest pain, [physical limitations](#), patient-reported general physical and mental health status, treatment satisfaction and quality of life.

Participants were ages 18-55 years old and had been hospitalized for a heart attack in the U.S. between 2008 to 2012. Two-thirds of the 2670 participants (67%) were women; 76% self-identified as white adults, 17% as Black adults and 6% identified their race as "other," which included American Indian/Alaska Native, Asian, Pacific Islander and

East Indian. The researchers noted that Hispanic versus non-Hispanic was defined as an ethnicity separate from race, with 7.7% of participants identifying as Hispanic.

Participants completed three questionnaires at 1 month and 12 months post-heart attack to assess their level of perceived discrimination, heart attack recovery status (physical limitation and chest pain frequency), quality of life and general health status. They reported perceived discrimination of any type (such as racism and sexism), general physical and mental health status, heart attack recovery status, treatment satisfaction and quality of life with standardized research tools (Everyday Discrimination Scale; Short Form 12 scale; and Seattle Angina Questionnaire).

The analyses of the questionnaires scores and data found:

- Over one-third of the participants reported experiencing discrimination in their everyday lives.
- Higher exposure to perceived discrimination was primarily associated with worse heart attack recovery status (indicated by lower scores on the Seattle Angina Questionnaire).
- People with higher levels of perceived discrimination were more likely to report physical limitations and more frequent [chest pain](#) up to one year into the heart attack recovery period.
- Patients who reported higher levels of perceived discrimination also reported worse mental health status, treatment satisfaction and quality of life within the first year after their heart attack.

"We were surprised to discover how common perceived discrimination was among participants in our study sample, and [health care professionals](#) should be aware that it appears to play an important role in patients' recovery," Arakaki said. "It's also important to highlight that perceived discrimination had a larger impact on heart attack-specific

outcomes compared to the general/generic measures of physical and mental health status. This indicates that perceived discrimination may be particularly important to consider when treating young patients (ages 18-55) recovering from a [heart](#) attack."

"Future research is needed to understand how to support patients with high levels of perceived discrimination during [heart attack](#) recovery, and whether perceived discrimination is a stronger determinant of outcomes among people from diverse racial, ethnic or social groups or those who live in under-resourced communities, or if other social determinants of health may also play a role," he added.

Because the majority of the participants were white and women and the analyses in this study did not include participants who did not complete the perceived discrimination questionnaire, its results may not be generalizable to the public. Future studies addressing perceived discrimination should include more people from diverse racial and ethnic groups. The study also did not assess the associations between specific types of discrimination (i.e., racism, sexism) and health outcomes.

"The findings regarding the relationship between perceived discrimination and health outcomes, quality of health outcomes, quality of life outcomes, and mental and physical health sharing an increased risk were not surprising given that we know that psychosocial stressors have an impact on cardiovascular health and [cardiovascular disease](#)," said Michelle A. Albert, M.D., M.P.H., FAHA, president of the American Heart Association, the Walter A. Haas-Lucie Stern Endowed Chair in Cardiology and professor of medicine at the University of California at San Francisco.

"What is needed in the literature are studies that assess the relationship between everyday discrimination and specific cardiovascular health

outcomes, as well as health outcomes in general, especially data at multiple time points," she said. "Health care professionals need to really understand the impact of structural racism and structural discrimination on health outcomes within this vein. That means that we need to double down on having culturally competent doctors and other [health](#) care professionals who understand the lived experiences of their patients, as well as who will listen to the concerns of their patients."

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**More information:** Abstract: [www.abstractsonline.com/pp8/? ...  
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Provided by American Heart Association

Citation: Perceived discrimination increased the risk of worse health outcomes after a heart attack (2022, October 31) retrieved 4 June 2024 from <https://medicalxpress.com/news/2022-10-discrimination-worse-health-outcomes-heart.html>

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