

**Optimism and Cardiovascular
Events: One Issue to be Considered**

To the Editor:

We read with great interest the report by Krittanawong et al¹ regarding the association between the levels of optimism and cardiovascular disease events. Increasing evidence suggests that interventions to improve mental well-being are associated with a multitude of beneficial impacts on cardiovascular diseases.² This meta-analysis successfully showed optimism to be associated with a lower risk of cardiovascular events and all-cause mortality.

However, one essential factor must be considered before translating their findings into clinical practice: Optimism is a nonpermanent mental state, which changes over time. Trait measures assessing optimism, including the Revised Life Orientation Test and 1- to 7-item questionnaires, cannot capture the transitions in the level of optimism,³ and there is no available instrument designed to measure changes over time.⁴ Furthermore, the follow-up periods of studies included in this meta-analysis ranged between 7 and 40 years, and the patients' level of optimism can fluctuate during the course of follow-up. For example, the levels of optimism were assessed only once or twice in some studies included in this meta-analysis.^{5,6} With such measurements, whether the patients were optimistic at the time of cardiovascular events is therefore unknown, despite their classification as "optimistic." When considering the results from this meta-analysis, readers should take into account the possible fluctuation of optimism over time. Future studies on

novel methods to accurately comprehend such traits of optimism will be of help to better assess the effect of optimism on various outcomes.

Tomonari Shimoda,^a

Noriaki Kou,^a

Hiroshi Ito, MD^b

^aCollege of Medicine, School of
Medicine and Health Sciences,

University of Tsukuba, Japan

^bDivision of Hospital Medicine,

University of Tsukuba Hospital,

Japan

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Requests for reprints should be addressed to Hiroshi Ito, MD, Division of Hospital Medicine, University of Tsukuba Hospital, 2-1-1, Amakubo, Tsukuba, Ibaraki 305-8576, Japan.

E-mail address: itohirokan@yahoo.co.jp