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Psychosocial factors and risk of hypertension: the Coronary Artery Risk Development in Young Adults (CARDIA) study.

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Abstract

CONTEXT: Although psychosocial factors are correlated, previous studies on risk factors for hypertension have typically examined psychosocial factors individually and have yielded inconsistent findings.

OBJECTIVE: To examine the role of psychosocial factors of time urgency/impatience (TUI), achievement striving/competitiveness (ASC), hostility, depression, and anxiety on long-term risk of hypertension.

DESIGN, SETTING, AND STUDY POPULATION: A population-based, prospective, observational study using participant data from the Coronary Artery Risk Development in Young Adults (CARDIA) study. A total of 3308 black and white adults aged 18 to 30 years (when recruited in 1985 and 1986) from 4 US metropolitan areas and followed up through 2000 to 2001.

MAIN OUTCOME MEASURES: Fifteen-year cumulative incidence of hypertension (systolic blood pressure of 140 mm Hg or higher, diastolic blood pressure of 90 mm Hg or higher, or taking antihypertensive medication).

RESULTS: The incidence of hypertension at year 15 was 15% from baseline and 13.6% from year 5. After adjusting for the same set of hypertension risk factors and each of the psychosocial factors of TUI, ASC, hostility, depression, and anxiety in 5 separate logistic regression models, higher TUI and hostility were significantly associated with risk of developing hypertension at 15-year follow-up for the total sample. Compared with the lowest score group, the adjusted odds ratio (OR) for TUI was 1.51 (95% confidence interval [CI], 1.12-2.03) for a score of 1; 1.47 (95% CI, 1.08-2.02) for a score of 2; and 1.84 (95% CI, 1.29-2.62) for a score of 3 to 4 (P for trend = .001). Compared with the lowest quartile group, the adjusted OR for hostility was 1.06 (95% CI, 0.76-1.47) for quartile 2; 1.38 (95% CI, 1.00-1.91) for quartile 3; and 1.84 (95% CI, 1.33-2.54) for quartile 4 (P for trend < .001). No consistent patterns were found for ASC, depression, or anxiety. Race- and sex-specific analyses and multivariable models with simultaneous

adjustment for all 5 psychosocial factors and other hypertension risk factors had generally similar results.

CONCLUSION: Among young adults, TUI and hostility were associated with a dose-response increase in the long-term risk of hypertension.

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