

**Self-Reported Racial Discrimination and the Metabolic Syndrome:  
The CARDIA Study**

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Self-reported racial discrimination is associated with a variety of adverse health outcomes, including depression, hypertension, and preterm birth, although the associations tend to vary by socioeconomic status. We tested the hypothesis that number of domains in which participants reported experienced discrimination is associated with the components of the metabolic syndrome. 2947 African- and European-Americans participants from the CARDIA study, age 32 – 49 (mean 40) who completed the year 15 survey on racial discrimination and had measurements of each component of metabolic syndrome were the basis of the analyses. The survey asked for self-report of any lifetime discrimination in seven domains: at school, getting a job, getting housing, at work, at home, getting medical care, and in public. We employed linear regression models to examine the associations between number of domains of discrimination (0, 1-2, or 3-7) and the following outcome variables: waist girth, HDL cholesterol, triglycerides (log transformed), fasting glucose, and systolic and diastolic blood pressure. One or two domains of SRD was considered the baseline for comparisons. In univariate analyses, there were no consistent patterns of association between number of domains of discrimination and metabolic syndrome components within race/gender groups (TABLE). This finding is expected among whites, for whom discrimination based on socioeconomic class or gender may be a more salient stressor than discrimination based upon race. Further study of the relationships between metabolic syndrome and particular domains of discrimination, for instance housing or employment, and other dimensions of discrimination, such as frequency of exposure, is warranted. Additionally, future research should address the interaction between ethnicity and socioeconomic status in modifying the effects of discrimination on health outcomes.

**TABLE: Metabolic syndrome components associated with domains of self-reported racial discrimination.**

	Domains of SRD	Black men (n=521)	Black women (n=773)	White men (n=789)	White women (n=864)
Waist Girth (cm)	0	93.9	92.1	94.0	81.1
	1-2	95.9	90.8	93.3	82.5
	3-7	93.3 *	88.9	92.4	85.4
HDL Cholesterol (mg/dL)	0	47.8	53.0	43.2	56.6
	1-2	48.0	54.8	44.0	54.9
	3-7	46.5	54.0	39.9	51.9
Ln (triglycerides, mg/dL)	0	4.50	4.34 **	4.68	4.36 **
	1-2	4.56	4.24	4.75	4.47
	3-7	4.54	4.31 *	5.02 *	4.47
SBP (mmHg)	0	116.5	117.5	113.2 *	106.5 *
	1-2	119.5	117.1	115.0	108.2
	3-7	118.8	115.0	110.0 **	104.7
DBP (mmHg)	0	77.4	76.9	75.6	69.7
	1-2	79.1	75.5	75.2	70.9
	3-7	79.1	75.6	69.4 **	69.8
Fasting glucose (mg/dL)	0	89.1	88.1	89.0	83.3
	1-2	87.2	85.1	86.9	81.7
	3-7	89.7	86.7	87.2	82.1

\* p < 0.10, \*\* p < 0.05, compared to 1-2 domains of self-reported discrimination.