Double Depression is Associated with Greater Risk of Incident Cardiovascular Disease than Major Depression: Data from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC)

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Evidence suggests depressive disorders are risk factors for cardiovascular disease (CVD), however, little attention has been given to double depression (major depressive disorder (MDD) superimposed on dysthymia). The current study sought to determine if double depression is a stronger predictor of incident CVD due to greater duration of exposure and severity of depression in adults initially free of CVD. We analyzed data from 29,581 adults (mean age = 45 years, 58% female, 42% non-white) from Waves 1 (2001-2002) and 2 (2004-2005) of the NESARC study. At Wave 1, the Alcohol Use Disorder and Associated Disabilities Interview Schedule was administered to assess lifetime history of DSM-IV MDD and/or dysthymia. A 4-level variable was created for depression: no depression history (n=24,339), lifetime MDD only (n=4,028), lifetime dysthymia only (n=246), lifetime MDD and dysthymia (double depression; n=968). At Wave 2, participants who reported being diagnosed with myocardial infarction, stroke, angina, or arteriosclerosis in the past year were coded as having incident CVD; those diagnosed with myocardial infarction or stroke were coded as having had a hard CVD event. There were 1,380 CVD events and 365 hard CVD events. Logistic regression models adjusted for demographics (age, sex, race-ethnicity, education) and CVD risk factors (hypertension, hypercholesterolemia, diabetes, smoking, BMI) revealed that lifetime double depression (*OR*=1.72, *95% CI*: 1.31-2.25, *p*<.001) and MDD only (*OR*=1.26, *95% CI:* 1.06-1.49, *p*=.01), but not dysthymia only (*OR*=1.45, *95%, CI:* 0.88-2.40, *p*=.15), predicted incident CVD. Double depression was a stronger predictor than MDD only (*p*=.04). In models predicting hard CVD events, double depression remained a predictor (*OR*=1.86, 95% *CI*: 1.10-3.16, *p*=.02) but MDD and dysthymia only did not (both *p*s>.43). Our findings partially support our hypothesis and suggest that persons with double depression may have a stronger connection to an elevated CVD risk in which prevention efforts should be intensified.

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