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Introduction: Stroke is one of the major cause of death in the developed world and a top ten contributor to the global burden of disease. Recent research evidence suggests that psychosocial distress has been implicated as both a precursor to stroke and significant risk factor for death in those with established stroke. Russia has one of the world's highest stroke incidence and mortality rates. Some experts have underlined the importance of the psychosocial distress of economic and political reforms as the main reason for the stroke mortality crisis in Russia in the 1990s.

Objectives: The aim of the present study was to estimate the effect of psychosocial distress on stroke mortality rate in Russia.

Methods: Trends in age-adjusted, sex-specific suicide (as an integral indicator for psychosocial distress) and stroke mortality rates in Russia from 1965 to 2005 were analyzed employing a distributed lags analysis in order to assess bivariate relationship between the two time series.

Results: Time series analysis indicates the presence of statistically significant association between the two time series for males ($R=2.02$; $p<0.000$) and for females ($R=4.64$; $p<0.05$) at lag 0.

Conclusions: These findings indicate that psychosocial distress is an important contributor to the high stroke mortality rate in Russian Federation. The results from present study also suggest that the Russian stroke mortality crisis in the 1990s is most likely to have been precipitated by the psychosocial distress imposed by rapid societal transformation.