

Changes in the Divorce and Birth Rates Correlate with the Suicide Rate in Japan

The Editor,

Sir,

The number of suicides in Japan has increased from approximately 22 000 per year before 1997 to over 30 000 per year since then. We previously reported a significant correlation between yearly suicide rates and the unemployment rate in Mie Prefecture, especially in men (1). In the present study, we examined the total number of suicides and the yearly suicide rate in Japan from 1991–2004, as reported to the National Police Agency, as well as the rates of birth, marriage and divorce throughout Japan during the same period, as reported to the Department of Work and vital statistics. The statistical analysis was performed using single regression analysis.

During this study period, 265 960 males and 118 503 females committed suicide in Japan. The annual rates of birth, marriage and divorce ranged from 1.29 to 1.53, from 5.7 to 6.4 and from 1.37 to 2.30. There was a negative correlation with the birth rate $r(14) = 0.89, p < 0.001$. The yearly suicide rates did not correlate with the marriage rate: $r(14) = 0.35, p = 0.21$. In contrast, the yearly suicide rates correlated significantly with the divorce rate: $r(14) = 0.92, p < 0.001$. Therefore, we consider that the decrease in birth rate and the increase in divorce rate are important factors in the increase of suicide rates. Motohashi has explored the associations between social and economic variables and the suicide rate in Japan from 1953 to 1986 (2). Leenaars and Lester have shown a positive association between divorce rates and suicide rates, and a negative association between birth rates and suicide rates, with marriage rates showing no consistent association from 1950–1990 in Canada (3). In the present study, the changes in both the divorce and birth rates are sup-

posed to be the effect of socio-economic factors that influence the mental health of citizens and hence the suicide rate. The same result was obtained, despite the differences in cultural background between Canada and Japan. We conclude that in order to deal with the increasing suicide rate in Japan, policy makers and healthcare professionals must pay close attention to the birth and divorce rates and must take preventive action.

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