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Letters to the Editor

Suicides, hurricanes and economic crisis

Director,

Lopez Bernal *et al.*[1] detected a suicide rate trend, between 2005 and 2010, of a 0.3% decrease per month and, above this underlying trend, an 8% increase in Spanish suicide rates since the financial crisis using an interrupted time-series analysis.

However, their model considers the economic crisis as an event that occurred suddenly in March 2008, so there is a 'before' and an 'after' that date with regard to monthly suicide rates. The authors decided that 1 April 2008 is the precise date of the 'economic hurricane' in Spain.

According to the most usual definition of economic recession (two consecutive quarters of decline in a country's real gross domestic product calculated as annual rate of change), the aftermath of the economic crisis in Spain was not in the second quarter of 2008, but at the first quarter of 2009.

By the summer of 2008, the previsions of gross domestic product growth were still positive. Neither the central nor regional governments had started any restrictions in social policies or social protection. Public budgets increased in 2008 as in the previous years. Neither the public expenditure on social protection nor in the healthcare system has fallen substantially until 2010/2011.

The authors have addressed the problem of the definition of the crisis with a sensitivity analysis in which, first, they set an even further away starting point: July 2007 (8% unemployment rate), with strikingly similar results (8% increase over the underlying trend); and, second, they set a final time of crisis: December 2009 (20% unemployment) and find a trend downshift.

Furthermore, and from the official statistics, yearly rates of mortality for suicide in Spain from 2006 to 2011 have been declining, with the exception of the specific increase of 6.9% between 2007 and 2008 for men and 2010 and 2011 for women. Particularly in 2010, the decrease has been noticeable. The fact that 2008 shows a transitory one-time increase in the suicides rates in men could explain the results reported.

The authors suggest that one of the main reasons behind the suicide patterns would be unemployment. In fact, economic crisis in Spain is characterized by high rates of unemployment. As monthly unemployment and mortality data are available (at least since 1998), it would be worth it to model a dynamic causal model. In fact, some of the authors are experts in those models,[2] and they have previously operationalized economic recession in the unemployment rate and quantified its association with suicides rates.[3]

The long-term decreasing trend of suicide rates in Spain is well established with time series up to 2008.[4] The question is if there has been a discontinuity in the series due to the economic crisis. The article suggests a positive answer. Instead, we have argued that the association between economic crisis and suicide mortality in Spain is far from being proven. One should be cautious and avoid getting alarmed by early warning that, even through they could be good for protecting health budgets from menacing cuts, do not reflect the measurable facts.

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RE: The effect of the late 2000s financial crisis on suicides in Spain: an interrupted time-series analysis

Dear Editor,

In their letter, Librero et al. have highlighted one of the main issues affecting studies of the financial crisis (and one that we highlighted ourselves in the 'Strengths and Limitations' section of the original article), that is, 'how do we define the financial crisis?'. As recommended when undertaking interrupted time series analyses of imperfectly identifiable events, we do this as objectively as possible by using an independent indicator—in this case gross domestic product (GDP).[1] This is the most commonly used indicator to define a financial crisis; we use it in the same way as in similar studies. There is considerable debate among economists as to how to define a recession, but we used the most widely used definition 'a decline in the seasonally and calendar adjusted real GDP in at least two successive quarters'.[2] According to Organisation for Economic Co-operation and Development figures, there were seven successive quarters of decline in GDP in Spain between the second quarter of 2008 and the last quarter of 2009 (Web Appendix 1 of the original article).

Librero et al. suggest that we should have used a later date for the onset of the financial crisis given that the government had not yet cut social spending. However, as we have noted elsewhere, the health effects of financial crises are often apparent before changes in economic indicators, reflecting high levels of apprehension at already visible impending difficulties.[3] The financial crisis was clearly having an impact on people's lives even before GDP started to