Austerity, health inequalities and resilience in Spain

Austeridad, inequidad y resiliencia en España

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Discussion of: Spijker J, Gumà J. The effect of the economic crisis on health in Spain according to educational level and employment status: Does the duration of the crisis also matter? Salud Colectiva. 2018;14(4):655-674. doi: 10.18294/sc.2018.1297

In their article, Spijker and Gumà[1] provide an intriguing discussion of how exposure to the prolonged economic crises might have affected population health in Spain. While the results show modest effects overall, perhaps the greatest contribution of the study is the way in which it raises important questions about the relationship between economic and social policies that governments may adopt (or fail to adopt) and how these reactions to macroeconomic forces help shape a population's health status over time.

In order to place these findings into context, it is important to understand the article's strengths and weaknesses and delve more in depth into the public health implications of the study's findings.

The study's strengths include the use of nationally-representative surveys that span a 14-year period, providing a long-term perspective. The statistical models developed are designed to include important confounders, such as demographic and economic variables, with the main indicator of exposure to the negative effects of economic crises being a qualitative indicator of the interviewee's assessment of their household's economic capacity to make ends meet. The use of three-way interaction terms is particularly helpful in trying to isolate vulnerable segments of the population in relation to their employment status, position in the household, and level of educational attainment reasoning that those with the most exposure to the effects of the crisis ought to experience the largest changes in their health status.

The main outcome is self-rated health and its use is another of the study's strengths, given the importance of this measure in predicting a variety of outcomes. Self-rated health is relatively simple to measure, has been shown to be valid in many different contexts and cultures, and is a strong predictor of future mortality.[2,3,4] Its determinants are thought to comprise current health status as well as health behaviors, psychological states, and social wellbeing. Recent studies have revealed relative differences between population groups: self-rated health seems to be a stronger predictive power in forecasting mortality in higher than in lower socio-economic groups[5] and a weaker predictor of mortality in older than in younger age groups.[6,7] This is another argument supporting the authors' choice to exclude retired (or close to retirement age) individuals from their analysis.

While self-rated health is a powerful indicator of an individual's health status, the meaning of population-wide changes in self-rated health is not as clear. How might the prolonged financial crisis have led to changes in self-rated health? Could it be due to accumulated untreated acute or chronic conditions? Some of the policy responses in Spain included dramatic austerity measures that redefined which services are covered by the public health system, introduction of user fees (co-payments) for some services and prescription drugs, reduction of public sector health worker salaries and benefits while increasing their working hours, and redefining who is eligible for benefits, among others.[8] Such cuts would likely affect

vulnerable populations more dependent on regular healthcare. However, despite substantial cuts to essential public services, the evidence of their impact seems to be mixed or only just emerging. While the implementation of health system austerity measures led to decreased utilization of healthcare services, mortality from conditions considered to be amenable to medical care do not appear to have deteriorated: from 2000 to 2014, Spain experienced an annual percent decrease in medical care amenable mortality of 3.4% for men and 3.3% for women.[9] Other analyses suggest that impacts of decreases in health care provision on some types of mortality are statistically significant but relatively small in magnitude for most causes, except injuries.[10] While a more recent study suggests that after 2011, previous rates of health improvements (measured by annual rates of all-cause mortality decline) in Spain may have significantly decelerated leading to an increase in the number of deaths that would have been expected had pre-crisis trends persisted.[11]

Perhaps instead self-rated health serves here as an indicator of general mental health status, which would be consistent with the evidence of increased prevalence of mental health problems in Spain following the earliest years of the economic crisis.[12] Or perhaps the results demonstrate a decline in people's perception of the quality of their lives overall.[13] While any of these scenarios is important to document, the current results raise several questions that require additional investigation.

Some of the analytic choices made limit the reader's ability to understand the magnitude and possible implications of the article's findings. For example, self-rated health is measured using a 5 point scale, but in nearly every study, it is dichotomized so that any statistically significant change in the variable (from very good/good to fair/bad/very bad) is interpreted as a negative health effect. However, by doing that we no longer know the true magnitude of change in the outcome. Perhaps changes in the subpopulations that reported increased poor/very poor self-rated health were the result of a 3 or 4 point shift,

moving from very good to very poor health. They could just as easily have been the result of a smaller shift such as the one-point shift from good to fair. And any potentially large changes within categories (such as a 3-point shift from "fair" to "very poor" health) would remain undetected. The reader is left to wonder whether these results suggest a large and substantial shift in meaningful terms or whether they instead reflect a somewhat less severe (but nevertheless significant) shift downwards by only one category in the 5 point self-rated health scale. While the study's results would be unaffected by which scenario was driving the observed changes, the public health implications might be quite different.

While the complexity of measuring and interpreting health inequality measures is well documented, the field has yet to find more satisfying ways of synthesizing results from these different approaches and this limitation is present in the current study.[14] Here, the Odds Ratio (OR), which is a commonly used measure of relative health inequalities, is subject to certain difficulties when assessing inequality trends over time. This is because the OR's magnitude may be affected by changes in the prevalence of an outcome, changes in group membership, or a combination of both factors. Given the high prevalence of poor self-rated health in Spain (ranging from 16 to 26% of the population) the use of ORs may exaggerate the overall level of relative inequalities.[15] For these reasons, other approaches are often used, such as calculation of the Relative Index of Inequality, which would be particularly helpful in this case since this measure takes into account the fact that in each period participation in some groups (such as the unemployed or household position) may have also have changed. Moreover, the use of a relative measure of inequality only "tells part of the story."[16] In order to understand the public health implications of these findings, changes in absolute inequalities are also needed and could be obtained using the same data to calculate the Slope Index of Inequality or a similar measure. This would allow for examination of the

absolute magnitude of the changes observed for different population subgroups in each period, controlling for relevant confounders.

Given these strengths and weaknesses, what are the lessons that can be learned from the article? Like any intriguing examination of the way larger forces shape human health and well-being, the article challenges the reader to examine what we still need to know about the effects of so-called austerity policies on health and health inequalities. How long does it take for effects to appear? Are measures that reflect mental health status (such as self-rated health) the first to show such impacts? Do changes in self-rated health provide an indication of short-term adjustments to difficult circumstances, or do they portend a more fundamental change in health status? Another concern is whether such changes, even if only short-term, will have longer-term effects through early-life and even inter-uterine effects caused by maternal stress. While researchers often must wait for official data collection procedures to take place and only then assess the impact of policies on health outcomes, sometimes years after they have already taken place, newer approaches to answering these questions, such as ex-ante microsimulations, have begun to provide means to estimate policy impacts of macroeconomic policies before they occur.[17] Unfortunately, the use of these techniques is still far outside the toolkit of most public health professional training and thus we are too often in the position of documenting the past instead of informing real-time policy-making.

Finally, although it is clear that we should anticipate negative effects of economic crises and austerity policies that unfairly target the poor, the other important area that remains relatively unexplored is why there were not much larger health effects observed in Spain. That is, does the lack of major changes in health status point to specific factors lending greater resilience to the Spanish population, such its strong primary care-based health system, its social institutions such as the family, or the composition and characteristics of its welfare state?[18] These factors are perhaps equally important to understand as they could lead to different types of interventions designed to protect populations from future disasters--both natural and man-made.

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