## Self-rated health status, health inequalities and economic crisis: the case of Spain

Autopercepción del estado de salud, las desigualdades en salud y la crisis económica: el caso de 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):655-670. doi: 10.18294/sc.2018.1297

There are a great deal of articles discussing the effects of the economic crisis that began in 2008 on the health of European and North American populations, especially in countries such as Spain, Portugal and Greece, which suffered the greatest impacts of the decline in economic growth and the highest rates of unemployment and adopted austerity measures with significant cuts in social policy financing. (1,2,3)

The results of several of the articles seem to be conflicting, however, and some have reached conclusions completely opposite from what would be expected based on the current knowledge of macro-social determinants and their impact on health.<sup>(4)</sup>

Although the relationships and mediations between macrosocial phenomena, such as economic crises, and the effects on population health are not simple to adequately unravel, several authors have used more appropriate methods and concepts to avoid hasty and simplistic conclusions. This is the case of the article under discussion,<sup>(5)</sup>

in which the authors used an appropriate methodology and carefully analyzed and interpreted their findings.

One of the advantages of the article over many others is that the authors analyzed health status in 2006, 2010 and 2014 – before and during the crisis – probably enabling better assessment of the effects, taking into account the gap between the deterioration of economic conditions and the loss of effectiveness of social policies as a buffer against negative impacts. (4,6)

Both the social policies of the welfare state and the mechanisms of social solidarity, significant factors to curb the harmful effects of the decline in the economic status of families, tend to lose effectiveness during the onset and deepening of the crisis until economic recovery, whether due to the austerity policies imposed by international organizations or the domestic government, or due to the loss of the solidarity safe net due to the extension of the crisis.

Crises can be divided into different phases. The first wave is of initial economic impact with a decline in GDP growth and reductions in jobs and family income, among other issues. The second wave is marked by social impacts with a rise in the unemployment rate, difficulty in the introduction of young people into the labor market, and austerity policies with a reduction in social benefits. Finally, the third phase consists of recovery with a resumption in growth that may have different rates in different countries or regions.<sup>(7)</sup>

The opportunity to analyze the effects until 2014, and therefore, over a longer period, allowed the authors to observe processes that could not yet be observed in previous studies whose data analysis included only three or four years after the onset of the crisis.

Another relevant point of the article is that the authors considered in their analyses and interpretation of results the specificities of the social formation of Spain and aspects of the political scenario, extremely important to modulate the effects of the crisis.

Several authors have had a somewhat naïve approach as they seem to expect a deterministic relationship between economic crisis and health of the population, and do not acknowledge that the macro determinants are not exactly the same in different social structures and that the mechanisms by which they operate may also differ from one scenario to another. As a complex phenomenon that affects not only the availability of goods but also changes in the pattern of health-related behaviors, the economic crisis can impact health status through mechanisms and processes that may have opposite results.<sup>(2,6,8)</sup>

As in any study that tries to analyze the relationship between social determinants and health, it is extremely important to choose both social process indicators and health indicators. The socioeconomic variables chosen by Spijker and Gumá<sup>(5)</sup> have interesting features for the analysis proposed. In addition to being easy to obtain and a variable with few unknown values in population surveys. the level of education also has the advantage of being stable in adult populations. Generally, at the age of 30, schooling has already been completed and thus, it is not expected to change over time for the same individual. For populations, however, the distribution of the level of education reflects the generation cohort effect, given that educational levels tend to increase over time, reflecting improvements in living conditions. Individuals of the age group of interest (30 to 59 years) in 2006 were born between 1947 and 1976, in 2010 were born between 1951 and 1980, and in 2014 were born between 1955 and 1984, and therefore experienced different schooling opportunities. The data presented in Table 1 of Spijker and Gumá's article(5) show exactly this trend of displacement of the population distribution to higher levels during the period studied, which in itself should result in improvement in self-rated health status.

The other three variables selected are more subject to changes in scenario, and therefore may reflect the effects of the economic crisis more quickly. Family structure, a family's economic capacity to face needs, and the employment status of a family, all refer to objective aspects that allow the identification

of social groups with different vulnerabilities regarding how they can be affected by the crisis and the resources with which they will be able to face it.

Likewise, the choice of self-rated health status as a dependent variable was an interesting one, since the variable reflects an overall assessment of health status that refers to the concept of health as well-being rather than simply as absence of disease. (9) Authors who have chosen mortality rate or indicators such as life expectancy (depending on the age-specific mortality profile) as a dependent variable have been unable to demonstrate the effect of the crisis on health, probably because both indicators are global indicators obtained by weighing deaths by age group and therefore subject to multiple factors related to age structure, the causes and determinants of deaths and the performance of health services. (8) Mental health, for example, is an important component of health status but is not appropriately reflected in mortality or life expectancy data, except for the incidence of suicide. There is evidence of worsening mental status and increased use of anxiolytics during a crisis. (2,10)

It is important to highlight the most crucial aspect in understanding the apparent paradox between improvement in health status and economic crisis: global data mask the differences between social groups and at different moments of a crisis. (1,6,8,9,11,12,13)

Although Barroso et al., (11) for example, acknowledged that between 2006 and 2012 the samples studied differed in relation to important health determinants such as level of education (with a reduction in the proportion of individuals with low or no schooling), which would favor a better perception of health status, they categorically stated that despite the crisis there were improvements in the level of health observed!

The changes in the distribution of health determinants before and during the crisis are responsible for different processes with different impacts on each social group. Thus, the long-term trend, not immediately changed by the crisis, of improving the level of schooling of the Spanish population with

the proportional reduction of individuals without schooling or with elementary schooling toward secondary and higher education strata was definitely one of the elements that contributed directly and indirectly to the improvement in health status.

In addition to better schooling, the period also witnessed greater income inequality, translated in an increase in the Gini index and the redistribution of the purchasing power of families, with a greater impact on the population of youth and young adults and relative preservation of the income of the elderly, thanks to pensions remaining intact during the period of crisis. Income increased in the upper quintile of distribution and was reduced in the bottom quintile. These partly positive and partly negative movements produce different impacts depending on the vulnerability of a social group, but generally tend to generate better health by disproportionately affecting healthier groups (youth and young adults). (1,8,12)

Even unemployment can have distinct impacts on groups that have lost their jobs early in the crisis and those who are chronically out of the job market. A significant portion of unemployment occurred in the civil construction sector that employs young people with low levels of schooling and without professional qualification. Unemployment in this group may have had a paradoxical effect on health status because, with the preservation of unemployment insurance in the first two years and the reduction in the risks associated with the occupation itself, health status may have been effectively perceived as better.

Likewise, cuts in public health expenditures were more concentrated on decrease in wages of health personnel than on the supply of services, and therefore may not have had an immediate effect on health status.<sup>(13)</sup>

As the authors show in the article discussed here,<sup>(5)</sup> the extension of a crisis can progressively erode compensatory mechanisms, producing harmful effects on the most vulnerable groups, but also on those that have had their economic status deeply affected.

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