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Positive or negative for population health? Responses to the debate regarding the two sides of how an economic crisis affects health based on the Spanish case

¿Positiva o negativa para la salud poblacional?: Respuestas al debate sobre las dos caras de cómo una crisis económica afecta la salud a partir del caso español

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Answer to:
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The results of our study[1] have shown that the evolution of the health indicators during the crisis years did not modify the overall improving trend in population health, a finding which could be counterintuitive *a priori*. Indeed, the initial hypothesis of our research was that differences in the levels of health between people with higher or lower educational levels or between those with or without employment would increase as a consequence of the crisis. However, the study results do not corroborate this hypothesis, given that the proportion of people who perceive their health as poor decreased in all groups of men and women aged 30 to 59 in the first crisis phase analyzed (between 2006 and 2010) and in most groups – except a few where the proportion increased slightly – in the second phase of the crisis (between 2010 and 2014).

In light of these results, as Tapia Granados[2] has pointed out, it could be concluded that the pattern is not compatible with a harmful effect of the crisis on health and that, to the contrary, there is a beneficial effect. Nevertheless, despite our statements above we have been extremely cautious about making such an affirmation. This if for a number of reasons. First, although we could have highlighted the fact that self-perceived health improved a great deal during the first period of the crisis, we were and continue to be reluctant to firmly establish that a crisis benefits health given the adverse effects that have been observed in earlier works, such as an increase in medication consumption or mental health issues.[3,4,5] Secondly, to confirm that a crisis really is beneficial to health, the positive effects should last over time, something we did not see in our results; in the second crisis period a clear stagnation of health improvements can be seen, especially among women and the highest socioeconomic groups, as well as single-parent males. It would be interesting, in future studies, to explore why specifically people with higher educational levels or without difficulties to make ends meet were more affected in the second period of the crisis even though, as Barradas Barata[6] mentions, the second wave of the crisis was marked by a large social impact that, among other consequences, led to an increase in unemployment, an increased difficulty of young people to enter the job market, and austerity policies reducing social benefits. The key could be found in the toughening of labor conditions and the subsequent increased level of pressure among those with a certain level of employment responsibilities, aspects we did not analyze and that could also be behind the lack of improvement among women in the second period. Indeed, Tapia Granados[2] also points

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to labor conditions as a possible explanation of the potential benefits to population health during periods of economic instability, but signaling in this case the lowest socioeconomic groups, for whom lack of employment means lack of daily exposure to contexts potentially harmful to health. This last statement would support some studies that consider the economic crisis to have an effect improving certain health-related behaviors, such as hours of sleep or free time that could be spent on healthy activities (like exercise), less consumption of unhealthy foods as well as alcohol and tobacco given family budget constrictions, and less time spent driving, with a corresponding decrease in traffic accidents.

These possible beneficial effects would be located in the short term, although habit changes could also last over a longer period if maintained. However, we cannot ignore recent evidence resulting from data that spans a longer time period, regarding the negative effectives of discontinuous labor trajectories on health in the short and long term[7,8]; this is another reason for our caution in interpreting "benefits" to health of economic crises. At present there is an interesting ongoing debate regarding whether an adverse socioeconomic situation has cumulative effects over the life course trajectory,[8] which in the case of being true, would indicate that the real effects on health of macroeconomic fluctuations would only be observable in the long term. In this sense, it is necessary to continue to monitor population health and reinforce institutional policies of social protection and cohesion, especially among people in disadvantaged socioeconomic situations, and to improve the coverage, access and quality of the health system while designing policies that promote health equity. For example, now that we are in a phase of economic recovery, it is important to support programs and activities oriented at promoting physical activity in the elderly and to monitor closely their evolution (by age, sex and socioeconomic category).

In addition, as we highlighted in the article, a part of the improvements in self-perceived health of the unemployed, especially men, could be explained by greater diversity in the sociodemographic profile as a consequence of the increase in the number of people unemployed. In this way, while previously the unemployed had a more specific profile characterized by a general situation of higher vulnerability (lower educational levels, poor health situations that impeded access to employment, etc.), in this crisis period the profile of the unemployed diversified, including groups that had not previously been considered vulnerable. For this reason, we conjecture that once the unemployed population is reduced to pre-crisis levels, there will once again be a clearer relationship with poor health.

We would also like to highlight the weight that has been placed in the discussion of our work on two well-known demographic variables: birth cohort and gender. Barradas Barata[6] points out the importance of the educational effect on improvements in self-perceived health over the course of time, given that in older generations the proportion of population with higher education is smaller and concentrated in men, while in younger generations, this proportion increases due to educational expansion, especially among the female population. In this way, two populations in the same 30-59 year age group, separated by a time gap of eight years, would show different educational profiles, for example, an increase of 11 percentage points in women with university studies, as shown in Table 1 of our study.[1] Therefore, given that those who have a higher level of education generally report better health, one part of the improvement over time in self-perceived health in the population as a whole in – including during the crisis period – would be explained by the changing structure of the population by educational level.

In terms of gender differences, Frank signals in the debate[9] that, in general, women earn less than men. As a result, we have the continuous and growing problem of family income that stagnates or diminishes due to inflationary pressures and changes in the labor market, with lower-paying jobs replacing better-paying jobs, multiple part-time jobs

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replacing full-time work, and overall poor labor conditions. As the deterioration in labor conditions becomes more widespread, especially in younger cohorts, public health efforts should prioritize better risk prevention and health promotion in the earliest stages of the life cycle to minimize the adverse health effects at more advanced ages.

Regarding other possible mechanisms behind our results, previous studies have suggested that the buffering effect of social support and family solidarity reduces the impact of economic recession on health. This could explain why self-perceived health in our study population did not worsen, especially that of men. Other studies relate the mechanism to sustained social services given that, despite cuts and new copays, the public health care facilities continue to be free and universal in scope.

Another reason to be cautious in our interpretations is based on the fact that all results of quantitative research are dependent on the methodologies and indicators used to measure population health and socioeconomic change. In our work we had to make a series of decisions that may require greater explanation. For example, the exclusion of those born outside of Spain, as noted by Tapia Granados,[2] was due to the fact that the group is very heterogeneous in terms of place of origin and time of residence in Spain. Indeed, the sociodemographic profile of the immigrants established in Spain has changed drastically as a consequence of precisely the period of economic recession. Those most economically vulnerable decided to try their luck in other European countries, given that they were the first victims of the massive disappearance of jobs.[10] Therefore, this issue should be more specifically researched; if immigrants had been included in our analysis it could have led to results that would be difficult to explain if demographic and socioeconomic characteristics of the immigrants were not considered in detail at each moment studied.

Additionally, although the survey distinguishs among five possible health categories, we decided to dichotomize the categories as good/very good and fair/bad/very bad. As Macinko[11] points out, in grouping possible responses we lost detail regarding the true magnitude of changes in the outcome. Perhaps changes in subpopulations that reported bad or very bad self-perceived health there was a three- or four-point shift from very good health to very poor health, or a smaller shift from good to fair. In either case, for us it meant the same change (from having good health to not having good health). Although the advantage of dichotomizing variables is to simplify statistical analysis and facilitate the interpretation and the presentation of results, we are aware of loss of detail in the information. Accordingly, future research should analyze in greater detail the changes in health during crisis periods beyond having or not having good health.

Finally, it should be considered that working with samples of the EU-SILC separated by a period of four years is equivalent to utilizing a cross-sectional survey with independent samples, while for example chronic diseases tend to be the result of accumulated exposure over the life course, exposures that also tend to be greater in the lower socioeconomic classes.[12] Therefore, although in the short term the crisis appears to have benefitted more the health of people from 30-59 years of age in Spain in the most disadvantaged classes, this does not guarantee that the gap would continue to narrow in the future. For this reason, it would be useful for future studies on this interesting topic to use longitudinal information observing the same people in periods before, during and after the economic crisis. As a conclusion, we would like to highlight that our work is just another step in the path to better understanding the complexity of the relationship between contextual factors and individual health. It should be clear, thanks to the rich debate that our work has generated, that there is still much to uncover before fully understanding how this relationship operates in the short, medium and long term. We are therefore totally in agreement with Barreto[13] that the story will

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not be complete until the experience of Latin American, a region with a context every bit as rich or more that that observed in the European continent in terms of social and economic diversity, can be told.

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