Public Support for the Imposition of a Tax on Sugar-Sweetened Beverages and the Determinants of Such Support in Spain

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Abstract
Background Taxes on sugar-sweetened beverages are an effective public health intervention, but can be difficult to implement in absence of public support. This is the first study to analyse the Spanish population’s support for a tax on sugar-sweetened beverages.

Methods We conducted a cross-sectional study of a representative sample of the Spanish adult population (n=1002), using a computer aided telephone interview with a questionnaire on nutritional policies. We then performed a descriptive analysis of support for the tax. The sociodemographic determinants of support for the tax were analysed using Chi-squared test ($\chi^2$) and Poisson multiple regression models.

Results A total of 66.9% of participants supported the introduction of a tax on sugar-sweetened beverages: this figure lies midway between the figure of 64.1% when responders were asked about the tax before being asked about subsidies and tax relief, and that of 70% when they were asked about the tax after being asked about subsidies and tax relief ($p = 0.049$). Support for the tax was respectively 16% and 35% lower among persons reporting centre and right-wing political affiliations than among those who professed left-wing ideological sympathies ($p < 0.01$), and 16% lower among regular consumers of sugar-sweetened beverages than among non-consumers of these drinks ($p = 0.01$).

Conclusions A clear majority of the Spanish population is in favour of imposing a tax on sugar-sweetened beverages. Awareness-raising campaigns and a policy of combining the measure with subsidies or tax cuts on healthy foods could increase the level of support among those currently against the intervention.

Introduction
Intake of sugar-sweetened beverages increases the risks of obesity,\(^1\) diabetes,\(^2\) cardiovascular disease,\(^3\) cancer\(^4\) and all-cause mortality.\(^5\) In 2016, the World Health Organisation (WHO) recommended the imposition of a tax on sugar-sweetened beverages of at least 20% of the retail price, with the aim of reducing their negative impact on health. This measure has shown itself to be effective in reducing the purchase and consumption of sugar-sweetened beverages,\(^6\) and thus serving
to sensitise the population to the health risks entailed in consuming such drinks.
The Spanish adult population consumes a mean of 246 ml/day of sugar-sweetened beverages, including soft drinks, fruit juices and fruit drinks.\textsuperscript{7} This consumption is higher among adolescents, among whom it rises to 450 ml/day\textsuperscript{8} and provides more than 6% of their total caloric intake,\textsuperscript{9} thereby contributing to the high prevalence obesity in Spain.\textsuperscript{10} In 2016, the Minister of Inland Revenue therefore announced the establishment of a tax on sugar-sweetened beverages in Spain, but the Government withdrew the proposal in the face of pressure from the soft drink industry and sugar beet sector.\textsuperscript{11} One year later, the Catalanian Regional Authority imposed a specific tax on sugar-sweetened beverages for health reasons, subject to the requirement that the full burden of this levy was to be borne by the end-consumer.\textsuperscript{12}

When it comes to drawing up public health policies, an important factor to be taken into consideration is their possible acceptance by the population,\textsuperscript{13} particularly when personal freedoms and individual responsibility are invoked to oppose them.\textsuperscript{14} In the absence of public support, even the best-intentioned and most carefully drawn up policy can prove difficult to pass into law or implement.\textsuperscript{15,16} Interviews conducted in a number of countries have detected a varying degree of popular support for the imposition of taxes on sugar-sweetened beverages in around 50% of the population, linked to socio-demographic factors and the attribution of obesity to different causes.\textsuperscript{15,17–26} In Spain, while the levying of a tax on sugar-sweetened beverages enjoys the support of scientific associations, health professionals and civil society organisations,\textsuperscript{27} to our knowledge there are no data available on the general population’s opinion on the matter. Hence, this study aimed to describe the degree to which the Spanish population supports the introduction of a tax on sugar-sweetened beverages, and analyse the determinants of such support. Furthermore, it also analysed the individual and environmental factors related to the consumption of the sugar-sweetened drinks to which obesity is attributed.

**Material And Methods**

Study design and participants
We conducted a cross-sectional study by interviewing persons aged 18 years and over, resident in Spain. As its base, the initial sampling framework took homes in Spain having a fixed telephone installed in September 2018. A total of 99.6% of homes had a telephone; and of these, 23.9% only had a mobile telephone, 1.6% only had a fixed telephone, and 74.2% had both. To extend the study’s coverage to persons who did not possess a fixed telephone or whose names had not been recorded in the database at their own request, a mobile telephone database was incorporated into the sampling framework, establishing a 50–50 distribution between fixed and mobile numbers. The mobile telephone database was created with randomly generated numbers starting with 6 and 7, deleting the prefixes (the first 3 digits of mobile telephone numbers) that do not exist.

The sample was obtained, using stratified random sampling by size of habitat and Autonomous Region (Comunidad Autónoma), with homes as first-stage sampling units. The sizes of the strata were obtained a priori on the basis of official statistics, and the persons to be interviewed in each stratum were selected by simple random sampling with post-stratification by sex and age group, until the pre-established sample size in each stratum was reached. This task was automatically performed with the aid of Bellview CATI (Computer Aided Telephone Interview) computer software. The interview was designed to obtain a 95.5% confidence level, with a precision of ± 3.5% for an estimated proportion of 50%. The response rate was 76%, thus making it necessary to select a total of 1,319 individuals until the pre-established sample size was reached. The final sample totalled 1,002 participants with proportional allocation per stratum.

Data-collection and study variables

The study questionnaire was purpose-designed by the study researchers taking other questionnaires used in similar interviews as reference, and then sent to public health policy experts and representatives of the Food and Agriculture Organisation (FAO) and the WHO, whose suggestions were subsequently incorporated. To ascertain the appropriateness, comprehensibility and order of the questions, the length and duration of the questionnaire, and the level of response, we carried out a pilot study on a sample of 60 persons from 30 May to 6 June 2018. Due to difficulties of
comprehension or inconsistencies in responses, the wording of 3 questions was amended halfway through the field work of this pilot study.

The study questionnaire was made up of 40 questions structured in 4 sections. The question using a 5-point Likert-type scale (ranging from “strongly agree” to “strongly disagree”) to evaluate support for a tax on sugar-sweetened beverages forms part of the section on price policies. In view of the fact that the pilot study showed that support for this measure varied according to the precise order in which the questions on price policies were posed, a random order was applied, with half of the participants first being asked about the tax, and the other half first being asked about reductions in VAT and subsidies on healthy products. Using the same Likert-type scale, we assessed the degree to which participants agreed with the attribution of obesity to different causes. The section on health included questions on weight and height, physical activity, sleep and food. Lastly, we included a section addressing socio-demographic information, with data on sex, age, nationality, educational level, marital status, occupational status, income level, political orientation and occupation, which served to assign social class. The interviews were conducted from 10 September to 1 October 2018, using a CATI having a mean duration of 20 minutes, administered by trained interviewers.

Statistical analysis

We performed a descriptive analysis by calculating the distribution of the frequencies and, where applicable, the mean of the sample’s socio-demographic characteristics, consumption of sugar-sweetened beverages, presence of excess weight (body mass index (BMI) > 25), and level of attribution of obesity to different causes. The degree of support for the tax on sugar-sweetened beverages was determined by calculating the percentage of those who agreed or strongly agreed with the measure. To compare support for the tax by category of study variable and the order in which the question was posed (i.e., before or after asking about tax relief and subsidies on healthy foods), the Chi-squared test ($\chi^2$) was applied. To analyse the determinants of support for the tax, we used Poisson regression models, adjusted for consumption of sugar-sweetened beverages, BMI and socio-demographic variables. As the results showed no variation after we excluded the variables of ideological orientation and income level, which displayed a high number of missing values, the
models are shown without adjustment for these variables. To correct small deviations in the final valid sample with respect to the proportional allocation, in all calculations we applied a weighting coefficient for each case, having regard to the proportional distribution by the variables of sex, age, autonomous region and habitat.

Results
The socio-demographic characteristics of the sample are shown in Table 1. The mean age of the 1002 participants was 50.3 years, and 52.7% were women. The breakdown showed the following: more than half had secondary education or higher (57.5%), were gainfully employed (53.2%), ideologically aligned with the political centre (50.4%), and reported an income of less than €1850 (57.5%); 42.4% were classified as having low social class status; 43.3% suffered from excess weight; and 22.5% were regular consumers of sugar-sweetened beverages.
Table 1
Socio-demographic characteristics of the study sample, representative of the Spanish adult population: 2018.

|                                | n   | %     |
|--------------------------------|-----|-------|
| TOTAL                          | 1002| 100   |
| Sex                            |     |       |
| Men                            | 474 | 47.3  |
| Women                          | 528 | 52.7  |
| Age (years)                    |     |       |
| > 65                           | 240 | 23.9  |
| 45–64                          | 358 | 35.7  |
| 30–44                          | 251 | 25.0  |
| 18–29                          | 153 | 15.3  |
| Educational level              |     |       |
| University                     | 271 | 27.0  |
| Secondary                      | 576 | 57.5  |
| Primary                        | 155 | 15.5  |
| Occupational status (n = 1001) |     |       |
| Gainfully employed             | 533 | 53.2  |
| Pensioner                      | 255 | 25.4  |
| Unemployed/unremunerated work  | 146 | 14.6  |
| Student                        | 67  | 6.7   |
| Ideology (n = 855)             |     |       |
| Left-wing                      | 319 | 37.3  |
| Centre                         | 431 | 50.4  |
| Right-wing                     | 105 | 12.3  |
| Income (n = 794)               |     |       |
| >€1850                         | 337 | 42.4  |
| €1050–1850                     | 251 | 31.6  |
| <€1050                         | 206 | 25.9  |
| Social class (n = 922)         |     |       |
| High                           | 273 | 29.6  |
| Middle                         | 258 | 28.0  |
| Low                            | 391 | 42.4  |
| BMI* (n = 986)                 |     |       |
| < 25                           | 559 | 56.7  |
| > 25                           | 427 | 43.3  |
| Consumption of sugar-sweetened drinks |     |       |
| Non-consumer                   | 655 | 65.4  |
| Occasional                     | 121 | 12.1  |
| Regular                        | 226 | 22.5  |

*BMI: Body mass index

Participants “agreed” or “strongly agreed” with obesity being essentially attributed to individual factors, with 92.2% attributing it to lack of effort, motivation and discipline, 95.4% attributing it to addiction to food high in fat, sugar or salt, and 97.2% attributing it to consumption of foods and sugar-sweetened beverages, as opposed to 75.7% who attributed it to genetics. Attribution of obesity to environmental factors was 69.9% for the high price of healthy foods and 86.8% for the low price of unhealthy foods. On a scale of 1 (strongly disagree) to 5 (strongly agree), mean scores ranged from 4.6 for excessive consumption of foods and sugar-sweetened beverages to 3.8 for genetics and the high price of healthy foods (Table 2).
Table 2
Degree of agreement with attribution of obesity to individual and environmental causes.

|                      | n     | Strongly disagree (%) | Disagree (%) | No opinion (%) | Agree (%) | Strongly agree (%) | Mean* (SD) |
|----------------------|-------|-----------------------|--------------|----------------|-----------|--------------------|-----------|
| INDIVIDUAL CAUSES    |       |                       |              |                |           |                    |           |
| Excessive consumption of foods and sugar-sweetened beverages | 1000  | 0.5                   | 1.3          | 1              | 32.3      | 64.9               | 4.6 (0.63) |
| Addiction to food high in fat, sugar or salt               | 994   | 0.4                   | 2            | 2.2            | 35.9      | 59.5               | 4.5 (0.68) |
| Lack of effort, motivation and discipline among people who suffer from obesity | 990   | 0.5                   | 2.4          | 4.8            | 42.1      | 50.1               | 4.4 (0.73) |
| Genetics            | 938   | 1.2                   | 10.4         | 12.6           | 54.3      | 21.3               | 3.8 (0.92) |
| ENVIRONMENTAL CAUSES |       |                       |              |                |           |                    |           |
| High price of healthy foods                                | 986   | 2.4                   | 16.6         | 11.8           | 36.2      | 32.9               | 3.8 (1.14) |
| Low price of unhealthy foods                                | 998   | 0.9                   | 6.9          | 5.4            | 36.1      | 50.7               | 4.3 (0.91) |

* Scale: 1-5 (1 "Strongly Disagree"; 2 "Disagree"; 3 "No opinion"; 4 "Agree"; 5 "Strongly Agree").

A total of 66.9% of participants supported the imposition of a tax on sugar-sweetened beverages (Table 3). The level of support for the tax was lower among participants professing a right-wing ideological orientation (51.2%; p < 0.01), persons who reported an income below €1,050 (61.2%; p = 0.04), those having low social class status (62.7%; p = 0.04), and regular consumers of sugar-sweetened beverages (57.2%; p < 0.01). The level of support for the tax was higher among participants who strongly agreed with obesity being attributed to: excessive consumption of sugar-sweetened beverages, addiction to sugar and lack of motivation and discipline (71%); the high price of healthy foods (74.6%); and the low price of unhealthy foods, (72.2%; p < 0.01; data not shown in the Table). The level of support for the tax was 9.2% higher (p = 0.049) in those cases where participants were asked about it after being asked about support for tax relief and subsidies for healthy foods (Table 3). This difference was more marked among women (13.1%; p = 0.04), adolescents and young adults (27.8%; p = 0.05), university students (18.5%; p = 0.04), participants ideologically aligned with the political centre (17.6%; p = 0.03), middle-class participants (20.4%; p =
0.02), and those who suffered from overweight (15.6%; p = 0.04).

Table 3
Prevalence of support for a tax on sugar-sweetened beverages, overall and by order of questions on price policies.

| Overall p | By question order | Relative difference p |
|-----------|-------------------|-----------------------|
| (N = 993) | Taxes first (N = 517) | Subsidies and tax relief first (N = 485) |
| TOTAL     | 66.9              | 64.1                  | 70.0  |
| Sex       |                   |                       | 9.2   | 0.05 |
| Men       | 65.3              | 63.8                  | 67.0  | 5.1  | 0.47 |
| Women     | 68.4              | 64.3                  | 72.8  | 13.1 | 0.04 |
| Age (years) |                   |                       |       |       | 0.53 |
| > 65      | 67.5              | 63.3                  | 72.2  | 14.0 | 0.16 |
| 45–64     | 69.5              | 69.0                  | 70.0  | 1.3  | 0.85 |
| 30–44     | 65.2              | 63.1                  | 67.7  | 4.4  | 0.45 |
| 18–29     | 63.4              | 55.6                  | 71.0  | 27.8 | 0.05 |
| Educational level |                   |                       |       |       | 0.14 |
| University | 69.9              | 63.9                  | 75.7  | 18.5 | 0.04 |
| Secondary | 67.2              | 64.6                  | 70.2  | 8.8  | 0.16 |
| Primary   | 60.4              | 62.4                  | 58.0  | -7.2 | 0.58 |
| Occupational status (n = 992) |       |                       |       |       | 0.56 |
| Gainfully employed | 66.8       | 64.5                  | 69.1  | 7.0  | 0.28 |
| Pensioner | 65.9              | 62.0                  | 70.2  | 13.3 | 0.18 |
| Unemployed/unemployed work | 71.3       | 66.4                  | 76.7  | 15.6 | 0.17 |
| Student   | 62.1              | 62.1                  | 62.1  | 0.0  | 1 |
| Ideology (n = 849) |       |                       |       |       | < 0.01 |
| Left-wing | 77.1              | 77.0                  | 77.3  | 0.4  | 0.95 |
| Centre    | 63.6              | 58.7                  | 69.0  | 17.6 | 0.03 |
| Right-wing| 51.2              | 45.9                  | 58.2  | 26.9 | 0.23 |
| Income (n = 788) |       |                       |       |       | 0.04 |
| > €1850   | 71.7              | 69.1                  | 73.9  | 7.0  | 0.34 |
| €1050–1850| 68.9              | 66.7                  | 72.3  | 8.4  | 0.36 |
| ≤        | 61.2              | 56.8                  | 66.3  | 16.8 | 0.17 |
Table 4 shows the prevalence ratios (PRs) of support for the tax obtained with Poisson regression models. In comparison with participants who professed a left-wing ideological orientation, support for the tax was 18% and 24% lower among those who reported centre-leaning (PR = 0.82; CI:0.75–0.91) and right-wing political affiliations respectively (PR = 0.66; CI:0.54–0.81). Support for the tax was also 15% lower among persons with a monthly income of under €1,050 (PR = 0.85; CI:0.75–0.97) as compared to those who reported an income of over €1,850, and 18% lower among regular consumers versus non-consumers of sugar-sweetened beverages (PR = 0.82; CI:0.73–0.93). Although these effects remained unchanged in the adjusted models, the effect for income ceased to be statistically significant.
Table 4
Prevalence ratios (95% CI) of support for a tax on sugar-sweetened beverages obtained with Poisson regression models.

|                                | Crude model | p     | Adjusted model* | p     |
|--------------------------------|-------------|-------|-----------------|-------|
| Sex                            |             | 0.3   | 0.76            |       |
| Men                            | 1           |       | 1               |       |
| Women                          | 1.05 (0.96–1.14) |     | 1.01 (0.92–1.12) |     |
| Age (years)                    | 0.53        |       | 0.76            |       |
| > 65                           | 1           |       | 1               |       |
| 45–64                          | 1.03 (0.92–1.15) |     | 0.97 (0.83–1.14) |     |
| 30–44                          | 0.96 (0.85–1.1)  |     | 0.92 (0.76–1.11) |     |
| 18–29                          | 0.94 (0.81–1.09) |     | 0.93 (0.74–1.17) |     |
| Educational level              |             | 0.17  | 0.36            |       |
| University                      | 1           |       | 1               |       |
| Secondary                      | 0.96 (0.87–1.06) |     | 0.98 (0.87–1.09) |     |
| Primary                        | 0.86 (0.74–1.00) |     | 0.87 (0.72–1.06) |     |
| Occupational status            |             | 0.54  | 0.23            |       |
| Gainfully employed             |             |       | 1               |       |
| Pensioner                      | 0.99 (0.88–1.10) |     | 0.98 (0.83–1.15) |     |
| Unemployed/unremunerated work  | 1.07 (0.95–1.20) |     | 1.11 (0.97–1.27) |     |
| Student                        | 0.93 (0.76–1.13) |     | 1.21 (0.93–1.59) |     |
| Ideology                       | < 0.01      |       | < 0.01          |       |
| Left-wing                      | 1           | 0.82 (0.75–0.91) |     | 0.84 (0.77–0.93) |     |
| Centre                         |             |       |     |       |
| Right-wing                     | 0.66 (0.54–0.81) |     | 0.65 (0.53–0.81) |     |
| Income                         |             | 0.06  | 0.17            |       |
| > €1850                        |             |       | 1               |       |
| €1050–1850                     | 0.96 (0.86–1.07) |     | 1 (0.88–1.11)  |     |
| < €1050                        | 0.85 (0.75–0.97) |     | 0.87 (0.74–1.01) |     |
| Social class                   |             | 0.04  | 0.17            |       |
| High                           |             |       | 1               |       |
| Middle                         | 1.04 (0.93–1.17) |     | 1.06 (0.94–1.19) |     |
| Low                            | 0.91 (0.81–1.02) |     | 0.95 (0.83–1.08) |     |
| BMI #                          |             | 0.43  | 0.9             |       |
| < 25                           |             |       | 1               |       |
| > 25                           | 0.96 (0.88–1.05) |     | 0.99 (0.90–1.09) |     |
| Consumer of sugar-sweetened beverages | < 0.01 |       | 0.01            |       |
| Non-consumer                   |             |       | 1               |       |
| Occasional                     | 1.04 (0.91–1.17) |     | 1.06 (0.93–1.21) |     |
| Regular                        | 0.82 (0.73–0.93) |     | 0.84 (0.73–0.96) |     |

* Adjusted for all variables in the table except ideology and income.
# BMI: Body mass index

Discussion

The practical totality of the Spanish population (97.2%) feels that excessive consumption of sugar-sweetened beverages causes obesity, and 2 out of every 3 people are in favour of a tax on sugar-sweetened beverages, a level of support that drops among regular consumers of sugar-sweetened beverages and those who profess centre-leaning or right-wing ideological affiliations. Individuals who attribute obesity to consumption of sugar-sweetened beverages and the factors underlying this, are more strongly in favour of the measure. Support for the tax rose by 9.2% when participants were asked about it after other price measures, such as subsidies or tax cuts on healthy products, had been proposed, with this figure doubling among university students and middle-class persons.
This is the first study to analyse the opinions of a representative sample of the Spanish adult population about the imposition of a tax on sugar-sweetened beverages. The proposed tax received majority support (66.9% of the sample), and higher than that observed in countries such as France (57.7%),29 the USA (40%),26 Germany25 and Australia (48%).30 Only one recent survey in the United Kingdom (UK) showed itself more favourable to this type of tax, with 70% in support,31 though at the time the UK survey was carried out, the tax had already been announced by the Government, and support for such measures is known to increase after their implementation.13 In Catalonia, the only Autonomous Region in which the tax has been introduced,12 the level of support also reached 70%, though the difference with respect to the rest of Spain was not statistically significant (data not shown in the tables). Furthermore, in the UK the measure is targeted at drink manufacturers and the tax revenues will be devoted to health promotion activities, aspects that are linked to a higher level of support.24,29,30,32,33 Our data support this thesis because, when participants were consulted about other types of price measures, such as tax relief and subsidies on healthy foods, before being asked about the tax, support rose to 70%, equalling that of the UK. This leap was particularly marked among people professing ideological alignment with the political centre and right, and among teenagers and young adults (ages 18–29 years), as was the case in Australia.30 In addition to enjoying more popular support, price policies that combine taxes with subsidies are not only more effective,34,35 but also mitigate the possible negative economic impacts of such taxes on the most underprivileged classes.36 At all events, a recent review found that taxation measures have neutral or positive impacts on social inequalities in obesity and obesity-related habits, such as consumption of sugar-sweetened beverages.37

A total of 97.2% of participants attributed obesity to consumption of sugar-sweetened beverages, a figure higher than that of around 90% observed in other countries,19,21,31 something that would go to explain the high level of support for the tax in Spain.13 The participants overwhelmingly agreed that obesity is due to causes linked to consumption of sugar-sweetened beverages, the responsibility for
which must be attributed to the individual. This result is in line with a narrative which suggests that obesity is essentially a question of individual responsibility, a way of perceiving and addressing the dominant problem in Spain and other countries in the region, reinforced and boosted by the mass media, which prioritises the application of measures designed to act on the individual rather than the environment. In such a context, it is no surprise that support for the tax would in great part depend on political ideology, with less backing from participants who profess centre-leaning and right-wing political affiliations, a finding in line with the results of other studies. 

As in the UK and Australia, support for the tax was lower among regular consumers of sugar-sweetened beverages, the main segment affected by the measure, given that there is a tendency for greater support to be given to restrictive interventions aimed at the behaviour patterns of others rather than of oneself. The differences observed by social class and income level (less support for the tax at the lowest levels), a finding in line with the results of other studies, disappeared when adjustment was made for other socio-demographic variables. Similarly, no differences were found by age or educational level, which were indeed observed in other studies. As in other studies, attribution of obesity to the consumption of sugar-sweetened beverages and addiction to food was linked to greater support for the tax. 

Backing for the tax was also higher among those who attributed obesity to environmental causes, such as the price of foods, a finding along similar lines to that observed in the US and German populations. 

Limitations

The principal limitation of the study involves a possible non-response bias, in that 24% of the individuals selected refused to participate. As a bias-correction technique, we used semi-controlled sampling with replacement, whereby corrected prevalence estimates are obtained that are similar to those used with other methods. Although this technique would ensure that the sample continued to be representative of the Spanish population in terms of the socio-demographic characteristics used in
the sampling, it is nevertheless possible that the individuals who are most motivated to respond might differ from those who do not respond in terms of other characteristics which determine support for the tax. A further limitation relates to the size of the sample, which was large enough for estimating the prevalence of support for the tax but limited for studying small-magnitude associations with sufficient precision. Moreover, the fact that this was a cross-sectional study means that the causality of the associations observed cannot be established. Other possible biases are social desirability bias and, in the case of the question regarding the consumption of sugar-sweetened beverages, recall bias. Lastly, weight and height were self-reported, something that tends to give rise to an underestimate of BMI.

Conclusion
In view of our results, the imposition of a tax on sugar-sweetened beverages to discourage their consumption, a WHO-recommended intervention of proven effectiveness, would be well received by the Spanish population, something that would facilitate its implementation and success. To increase support for the tax and mitigate its possible undesired effects, it would be advisable to combine the measure with subsidies or tax cuts on healthy foods, and with awareness-raising campaigns about the causes of obesity, environmental and genetic, which are not within the scope of individual control.

Abbreviations
- BMI
- Body mass index
- CATI
- Computer Aided Telephone Interview
- CI
- Confidence interval
- FAO
- Food and Agriculture Organisation
- PR
- Prevalence ratio
- UK
- United Kingdom
- USA
- United States of America
- WHO
- World Health Organisation

Declarations

**Ethical Approval and consent to participate**

Participants were informed about the survey and the voluntary and anonymous nature of their participation before giving verbal consent to participate. Given the nature of the study, which does not contain any individual person’s data in any form, ethical approval was not required.

**Consent for publication**

Not applicable.

**Availability of supporting data**

The datasets used during the current study are available from the corresponding author on reasonable request at mroyo@isciii.es.

**Competing interests**

The authors declare that they have no competing interests.

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**Authors’ contributions**

MARB and CFE were responsible of the design of the study and the questionnaire used. SFSE analyzed the data and wrote the first draft of the paper in collaboration with MARB. All authors provided substantial inputs to the manuscript. All authors read and approved the final version of the manuscript.

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