


Anxiety and fear of COVID-19 in the UK general population

A cross-sectional study

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Abstract

There is still a generalized feeling of uncertainty in the population due to the coronavirus disease 2019 (COVID-19) pandemic, as restrictions on daily routines and social contact, accompanied by a large number of infections, negatively affect different areas of people's lives and, therefore, their mental health. The aim of the present study was to assess the presence of anxiety and fear of COVID-19 in the general UK population, using the Anxiety and Fear to COVID-19 Assessment Scale (Ansiedad y Miedo al COVID-19) (AMICO) scale. A descriptive, cross-sectional study based on a questionnaire was conducted in a sample of the UK general population in 2021. Socio-demographic and employment variables were included. The AMICO scale was included to measure fear and anxiety about COVID-19. The relationship between variables was studied with a categorical regression analysis. In general, participants regarded themselves as well-informed about the pandemic, although 62.6% had only received 1 dose of the vaccine. Regarding the AMICO scale the total score was 4.85 (out of 10; standard deviation 2.398). Women showed higher scores for the AMICO than men. The bivariate analysis revealed statistically significant differences in relation to self-confidence, amount of information received, and vaccination variables as related to the mean AMICO scores. An average level of anxiety and fear of COVID-19 is shown in the general UK population, which is lower than most of the studies that assessed the impact of the pandemic on the general population.

Abbreviations: AMICO = Anxiety and Fear to Covid-19 Assessment Scale (*Ansiedad y Miedo al COVID-19*), COVID-19 = coronavirus disease 2019, EFA = exploratory factor analysis, FCV-19 = fear of COVID-19.

Keywords: anxiety, COVID-19, fear, psychological distress, UK

1. Introduction

In December 2019, the first case of pneumonia caused by the new form of coronavirus was detected in Wuhan, China, with severe acute respiratory syndrome coronavirus 2 confirmed as the causative agent on January 7, 2020.^[1] The emergence of this new virus triggered a confusing situation, as it quickly spread to other provinces and regions of the country and subsequently worldwide and was characterized by an extremely high infection rate and relatively high mortality.^[2]

Thus, on January 30, 2020, the World Health Organization declared this disease a “public health emergency of

international concern.”^[3] The UK was one of the first countries affected in Europe, with its first 2 confirmed cases of coronavirus disease 2019 (COVID-19) detected on January 31, 2020.^[4] From this point onwards, cases began to increase exponentially, leading to the declaration of a lockdown for the entire UK population from March 23, 2020, until July 31, 2020.^[5] However, the UK's initial response to the pandemic was slow.^[6] Due to the large volume of infected people, there was even a need to create hospitals with the specific purpose of treating these patients, as was the case of the “Nightingale Hospital,” which was built in London to receive up to 4000

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patients with COVID-19.^[6] Since then, up to 6 waves of infections have occurred in Europe, forcing countries such as the UK to take drastic measures to curb the number of infected people. Currently, 11,518,255 cases and 147,723 deaths have been confirmed.^[7]

To address this situation, on December 8, 2020, the UK became the first country to initiate a COVID-19 vaccination program. Initially, vaccination was prioritized for the elderly over 80 years of age and frontline healthcare workers,^[8] reaching 47,051,876 people who are currently fully vaccinated, that is, 70.40% of the UK population.^[7]

However, although vaccination has considerably reduced the likelihood of developing severe disease from the virus, it has not proved to be an effective measure to reduce the number of infections due to the multiple mutations the virus has undergone. All this leads to a generalized feeling of uncertainty in the population, increased by the restrictions on mobility and social contact imposed in all countries, thus negatively affecting different areas of people's lives and mental health.^[9]

In general, the effects caused by COVID-19 on the physical and mental health of the population have been and continue to be studied. Apart from the medical consequences of COVID-19, this pandemic has also been characterized by its propagation over time, thus defining the term "coronaphobia" to designate the long-term mental illnesses related to the pandemic.^[10]

This raises the need for renewal and for the development of tools that measure specifically pandemic-related fear and anxiety in the general population. One of the first scales designed for this purpose was the fear of COVID-19 (FCV-19).^[11] The Anxiety and Fear to Covid-19 Assessment Scale (Ansiedad y Miedo al COVID-19) (AMICO) was designed following the methodology proposed by Epstein et al.^[12] Initially, it was based on the 10 items of the FCV-19 scale, which were evaluated by a panel of experts prior to the psychometric analyses conducted for that study.^[11] With these 10 items, a translation/back-translation process was applied and the cross-cultural adaptation was studied by a panel of experts. It was made up of 10 subjects, namely professors and researchers from different Spanish universities, with the academic level of Doctor or Official Master and whose areas of knowledge were public health, family medicine, clinical psychology, nursing, and social work. In addition to the 10 items, the panel of experts proposed and agreed, using the Delphi technique, to consider 8 new items measuring the anxiety construct. The 18 items were then submitted to a new Delphi round. The exploratory factor analysis (EFA) produced a dimensional matrix of 16 items and 2 factors, explaining 64.8% of the variance (Kaiser-Meyer-Olkin test = 0.94; Barlett test: $P = .001$). The reliability study provided a Cronbach α value of 0.92. The response options of the AMICO scale range from 1 to 10 points, where 1 corresponds to "strongly disagree" and 10 to "strongly agree."^[10] Likewise, the AMICO scale was validated concurrently with the State-Trait Anxiety Inventory questionnaire.^[13]

As in Spain, nurses in the UK have felt overwhelmed by the heavy workload. Likewise, the general population has also been severely affected in this respect. The AMICO scale has proved to be a valid and reliable tool in the Spanish general population to identify the extent to which the COVID-19 pandemic has affected the mental health of the population and thus offer specific interventions to address a global population problem. Therefore, there is a need to validate this scale in the UK population as well.

With regard to the so-called adverse effects, over the last 40 years, with the first Intergovernmental Panel on Climate Change in 1988, a consensus has emerged on the role of human activity in increasing global temperature and accelerating climate change, factors that significantly threaten public health.^[14] These threats have a direct impact on health and are expected to cause 250,000 deaths per year worldwide

between 2030 and 2050, mainly from malnutrition, infectious diseases, and heat stress, according to the World Health Organization.^[15]

Future research on adverse effects also helps to predict infectious respiratory diseases, including COVID-19, and other non-respiratory diseases.^[16] Given these possible adverse effects and in an attempt to anticipate the problem in order to prevent possible related mental health conditions, it would be advisable to develop new studies that assess the presence of anxiety and fear in specific population groups such as the elderly, children, people with mental health problems, and frail people with the aim of exploring what they experience when faced with certain health situations. Knowing how certain population groups behave in the face of an adverse effect of this type, such as the COVID-19 pandemic, can be of great help for future interventions.^[17]

In this context, the aim of the present study was to assess the presence of anxiety and FCV-19 in the general UK population, using the AMICO scale.

2. Materials and methods

2.1. Design

A descriptive, cross-sectional study based on a questionnaire was conducted according to the Herzog et al classification,^[18] which was disseminated between April and June 2021.

2.2. Population and sample

This study was conducted in the UK, a country with a population of 67,025,542 as of 2019.^[19] A sample of at least 239 people was estimated for this study, with a confidence level of 95%, a precision of 3%, and an expected loss ratio of 15%. Finally, the total sample for this study was 657.

2.3. Participants and public involvement

This study developed its research question with a basis on experiences and psychological needs expressed by the public. The public was not involved in the design of the study. Participants were encouraged to disseminate the questionnaire to relatives who lived in the UK. The participants could agree on receiving the investigation results, once the study had concluded and outcomes were published.

2.4. Variables

Socio-demographic variables such as sex, age, region of residence, marital status, level of education, number of cohabitants, size of the dwelling, health status, diagnosis and hospital admissions for COVID-19, voluntary self-confinement to avoid infection, vaccination, and side effects were included. Employment variables were also included, such as employment status, work sector, and salary. Finally, the AMICO scale variable was included to measure fear and anxiety about COVID-19.

2.5. Instruments

The Anxiety and Fear of COVID-19 Assessment (AMICO) scale was used. This scale was already designed and validated in previous studies. The validation of the AMICO_UK scale was carried out in a previous study. For the adaptation of the AMICO scale to the UK context, a process of direct translation into English and back-translation into Spanish was carried out in order to verify that the translated version reflected the same content as the original versions.^[20] This double translation process was performed by 2 translators who were native Spanish speakers, but who resided and worked in the UK and had a minimum

of a Master's degree. The translated version was evaluated by a panel of 10 experts.^[21]

Subsequently, a pilot test was carried out with 20 subjects to detect understanding problems, after which the field study was initiated with a sample of subjects living in the UK.

Prior to the EFA, a Kaiser-Meyer-Olkin measure of 0.961 and a significance level of 0.000 in the Barlett test of sphericity were obtained. With these results, the EFA was implemented in accordance with the criteria of principal components analysis and varimax rotation, which yielded a factorial solution of 2 dimensions and 16 items. This factorial solution explained 76% of the variance.

A reliability study was also carried out, providing an overall Cronbach α value of 0.964, and 0.90 and 0.92 for each of the factors.

After that, confirmatory factor analysis was performed to assess construct validity, which offered the following values: discrepancy divided by degree of freedom = 4.59 ($P = .17$; Normed Fit Index = 0.97; Tucker-Lewis index = 0.956; comparative fit index = 0.976; root mean square error of approximation = 0.07; and Quadratic standardized residual = 0.04).

2.6. Procedure/settings

A non-probabilistic snowball sampling was carried out. For the recruitment of the sample subjects, an online questionnaire was elaborated using Qualtrics®, which included information about the study and the items related to the variables of said study. The questionnaire was sent to the population through social networks.

All participants were duly informed of the purpose of the study, as well as of the possibility of participating voluntarily, anonymously, and confidentially. To participate, subjects had to tick a box to grant participation on a voluntary and anonymous basis. Once this box was ticked, participants had access to the questionnaires. Otherwise, they could not be accessed.

2.7. Data analysis

The Kolmogorov–Smirnov test was first applied to test normality, obtaining a $P < .005$ and allowing the use of non-parametric tests. Contrast tests were performed with the Mann–Whitney U and Kruskal–Wallis test. The correlation between quantitative variables was checked with the Kendall tau b test.

The relationship between qualitative variables was checked with a categorical regression analysis, which included variance, coefficient of determination (R^2), regression analysis, and significance of model parameters.^[22]

Univariate and bivariate descriptive analyses were performed using the SPSS® statistical software^[23] (IBM, Armonk, NY). For the calculation, the optimal scaling option was chosen in the software.

2.8. Ethical aspects

This study in the UK is part of the IMPACTCOVID-19 international investigation project, which followed the methodology of a previous investigation in Spain consisting of the validation and cross-cultural adaptation of the AMICO scale^[12] and consequently assessment in a specific population.^[24] As mentioned before, the AMICO scale was designed by a team of different professionals,^[17] based on the FCV-19 scale.^[11] No permissions nor licenses were required for its use.

Permission to conduct this study was obtained from the National Health Service Health Research Authority, IRAS project ID 283849, REC reference 20/HRA/3997. This study also complied with the guidelines set in the Declaration of Helsinki regarding ethical principles for medical research involving human subjects.^[25]

All individuals in the sample agreed to participate on a voluntary basis by reading and signing informed consent. Confidentiality of data and anonymity of participants was ensured, always respecting the protection of the rights of the participants of the study.

3. Results

3.1. Descriptive analysis

The sample selected for the study consisted of 657 people living in the UK. As can be seen in Table 1, of the total sample, 80.5% were women, with a mean age of 48.25 years (Table 1).

As regards income, 71.7% said they had sufficient resources to make ends meet.

With regard to general health status, the mean score for this variable was 6.67. Also, 58.8% had never self-confined to protect themselves, although the majority did consider themselves to be at risk for one reason or another.

In general, participants regarded themselves as well-informed about the pandemic, with a mean score for this variable of 7.94 points. Also, at the time of the survey, only 14.5% of the sample had been vaccinated with both doses and 62.6% had only received 1 dose; on the other hand, 6.2% claimed they did not want to get the vaccine. Of those who had been vaccinated, 35.6% had had no side effects after the administration but just pain at the injection spot (Table 1).

Regarding the AMICO scale variable, the mean AMICO total score was 4.85 (SD = 2.398), with a range of scores from 1 to 10.

On the other hand, the Kolmogorov–Smirnov test, with a significance of 0.000, revealed that the distribution of scores obtained on the AMICO scale did not follow a normal distribution, so non-parametric tests were performed.

The bivariate analysis revealed statistically significant differences in relation to sex, end-of-month income, health status score, self-confidence, amount of information received, and vaccination variables related to the mean AMICO scores (Table 2). Thus, women showed higher scores on the AMICO scale than men. In terms of income, those who did not make ends meet showed higher levels of fear and anxiety about COVID-19. In addition, those who had not self-confined to protect themselves against the disease got the highest scores on this scale. On the other hand, those who had not yet been vaccinated with any dose were the most fearful and anxious (Table 2).

3.2. Regression analysis

The calculation of the categorical regression was implemented, first, with the mean total score of the AMICO questionnaire as the dependent variable and the rest of the variables that showed significant differences in the descriptive bivariate analysis (Table 3). In this sense, the results suggest that women who reported not receiving enough money to make ends meet, who did not self-confine, and who had been vaccinated with only 1 dose presented higher levels of anxiety and FCV-19.

4. Discussion

The validation of the AMICO_UK scale was carried out in a previous study. For the adaptation of the AMICO scale to the UK context, a process of direct translation into English and back-translation into Spanish was carried out. The translated version was evaluated by a panel of 10 experts. Subsequently, a pilot test was carried out with 20 subjects to detect understanding problems.^[21]

On the other hand, the study of percentiles and quartiles with respect to the distribution of mean scale scores allowed identifying 3 proposed levels of anxiety using a box-and-whisker

Table 1**Description of the sample profile.**

| Quantitative variables | Value | Result | Range |
|------------------------|------------------------------------------|-----------------|---------------------|
| Age | Mean | 48.25 | Minimum = 16 |
| | Standard deviation | 14.861 | Maximum = 80 |
| No of co-dwellers | Mean | 2.58 | Minimum = 1 |
| | Standard deviation | 1.3 | Maximum = 10 |
| Health state score | Mean | 6.67 | Minimum = 0 |
| | Standard deviation | 2.061 | Maximum = 10 |
| Level of information | Mean | 7.94 | Minimum = 1 |
| | Standard deviation | 2.078 | Maximum = 10 |
| Qualitative variables | Value | Result | Total |
| Sex | Male | n = 120 (18.3%) | Total sample 657 |
| | Female | n = 529 (80.5%) | |
| Marital status | Married | n = 318 (48.4%) | |
| | Single | n = 174 (26.5%) | |
| | Widow/er | n = 25 (3.8%) | |
| | Separated/di- vorced | n = 63 (9.6%) | |
| | Doesn't say | n = 17 (2.6%) | |
| | Other | n = 60 (9.1%) | |
| | Other | n = 120 (18.3%) | |
| Educational level | Secondary | n = 108 (16.4%) | |
| | Higher secondary | n = 97 (14.8%) | |
| | University (Master's or Doctorate) | n = 263 (40%) | |
| | University (degree) | n = 8 (1.2%) | |
| | Without studies | n = 21 (3.2%) | |
| | Doesn't say | n = 40 (6.1%) | |
| | Other | n = 40 (6.1%) | |
| Work situation | Studying | n = 14 (2.1%) | |
| | Doesn't say | n = 13 (2%) | |
| | Full-time outside of home | n = 134 (20.4%) | |
| | Full-time from home | n = 116 (17.7%) | |
| | Part-time outside of home | n = 81 (12.3%) | |
| | Part-time from home | n = 50 (7.6%) | |
| | Part-time outside of home | n = 21 (3.2%) | |
| | Part-time from home | n = 135 (20.5%) | |
| | Part-time from home | n = 39 (5.9%) | |
| | Part-time from home | n = 54 (8.2%) | |
| | On sick leave | | |
| | Retired | | |
| Unemployed | | | |
| Other | | | |
| Sufficient income | Yes | n = 471 (71.7%) | |
| | No | n = 58 (8.8%) | |
| | Not always | n = 103 (15.7%) | |
| | Doesn't say | n = 20 (3%) | |
| | Other | n = 5 (0.8%) | |
| COVID-19 diagnosis | Yes | n = 69 (10.5%) | |
| | No | n = 586 (89.2%) | |
| Self-confinement | Yes | n = 264 (40.2%) | |
| | No | n = 386 (58.8%) | |
| Vaccination | Yes, with 2 doses | n = 95 (14.5%) | |
| | Yes, with 1 dose | n = 411 (62.6%) | |
| | No | n = 105 (16%) | |
| | No, I refuse vaccinating | n = 41 (6.2%) | |
| | Doesn't say | n = 5 (0.8%) | |

COVID-19 = coronavirus disease 2019.

plot. Levels were identified as low, with scores ranging from 0 to 4.7 points, intermediate, with scores ranging from 4.71 to 6.7 points, and high, with scores ranging from 6.71 to 10 points. The analysis of the statistical significance of the differences between the identified levels, using the Mann–Whitney *U* statistic for each pair of levels tested, always gave a value of $P = .000$; thus, it can be concluded that there are significant differences

between the identified levels, and the relevance of these differences is confirmed by the Mann–Whitney *U* statistic for each pair of levels tested.^[17]

The results of the study showed an average level of anxiety and FCV-19 in the general UK population, as measured by the AMICO_UK scale. However, most of the reviewed studies provide evidence of the high impact of the COVID-19 pandemic

Table 2**Bivariate descriptive analysis.**

| Variables | Total sample (n = 657) | Mean AMICO score | Contrast hypothesis |
|------------------------------|------------------------|------------------|---------------------|
| Sex | | | |
| Male | n = 120 (18.3%) | 4.15 | P = .000* |
| Female | n = 529 (80.5%) | 5.09 | |
| Marital status | | | |
| Married | n = 318 (48.4%) | 4.82 | P = .426‡ |
| Single | n = 174 (26.5%) | 4.89 | |
| Widow/er | n = 25 (3.8%) | 4.83 | |
| Separated/ divorced | n = 63 (9.6%) | 4.81 | |
| Doesn't say | n = 17 (2.6%) | 4.6 | |
| Other | n = 60 (9.1%) | 5.55 | |
| Educational level | | | |
| Secondary | n = 120 (18.3%) | 4.84 | P = .239‡ |
| Higher secondary | n = 108 (16.4%) | 4.85 | |
| University | n = 97 (14.8%) | 4.46 | |
| (Master's or Doctorate) | n = 263 (40%) | 5.02 | |
| University (degree) | n = 8 (1.2%) | 6.44 | |
| Without studies | n = 21 (3.2%) | 4.77 | |
| Doesn't say | n = 40 (6.1%) | 5.20 | |
| Other | | | |
| Work situation | | | |
| Studying | n = 14 (2.1%) | 5 | P = .165‡ |
| Doesn't say | n = 13 (2%) | 4.81 | |
| Full-time outside of home | n = 134 (20.4%) | 4.55 | |
| Full-time from home | n = 116 (17.7%) | 5.4 | |
| Part-time outside of home | n = 81 (12.3%) | 4.55 | |
| Part-time from home | n = 50 (7.6%) | 5.25 | |
| On sick leave | n = 21 (3.2%) | 5.93 | |
| Retired | n = 135 (20.5%) | 4.75 | |
| Unemployed | n = 39 (5.9%) | 5.09 | |
| Other | n = 54 (8.2%) | 5.47 | |
| Sufficient income | | | |
| Yes | n = 471 (71.7%) | 4.61 | P = .000‡ |
| No | n = 58 (8.8%) | 5.94 | |
| Not always | n = 103 (15.7%) | 5.64 | |
| Doesn't say | n = 20 (3%) | 4.93 | |
| Other | n = 5 (0.8%) | 5.03 | |
| COVID-19 diagnosis | | | |
| Yes | n = 69 (10.5%) | 4.44 | P = .127* |
| No | n = 586 (89.2%) | 4.96 | |
| Self-confinement | | | |
| Yes | n = 264 (40.2%) | 4.31 | P = .000* |
| No | n = 386 (58.8%) | 5.76 | |
| Vaccination | | | |
| Yes, with 2 doses | n = 95 (14.5%) | 4.60 | P = .000‡ |
| Yes, with 1 dose | n = 411 (62.6%) | 5.16 | |
| No | n = 105 (16%) | 5.11 | |
| No, I refuse vaccinating | n = 41 (6.2%) | 2.53 | |
| Doesn't say | n = 5 (0.8%) | 4.00 | |
| Age | | | |
| Significance (SD) | 48.25 (14.861) | | Tau b = -0.047† |
| No of co-dwellers | | | |
| Significance (SD) | 2.58 (1.3) | | Tau b = 0.008† |
| Health state score | | | |
| Significance (SD) | 6.67 (2.061) | | Tau b = -0.2757† |
| Level of information | | | |
| Significance (SD) | 7.94 (2.078) | | Tau b = -0.120† |

AMICO = Anxiety and Fear to COVID-19 Assessment Scale (Ansiedad y Miedo al COVID-19), COVID-19 = coronavirus disease 2019, SD = standard deviation.

* Mann-Whitney U. † Kendall tau b. ‡ Analysis of variance (ANOVA).

Table 3
Model adjustment and significance of the regression analysis.

| | Standardized coefficients | | df | F | Sig. |
|-------------------|---------------------------|----------------------------------------|----|--------|------|
| | Beta | Bootstrapping (1000) of standard error | | | |
| Sex | -.126 | .038 | 1 | 11.121 | .001 |
| Sufficient income | -.170 | .042 | 4 | 16.123 | .000 |
| Self-confinement | .221 | .053 | 2 | 17.212 | .000 |
| Vaccination | .259 | .111 | 1 | 5.466 | .020 |

df = degree of freedom, Sig = significance.

on the mental health of the general population. This is the case of a study in Romania where, although older people are more likely to have serious problems associated with COVID-19 than younger people, the results showed that people cope with this fear regardless of age.^[26] Another study conducted in Germany positively related FCV-19 to the perceived risk of contracting the disease.^[27]

In line with the results of a review that was developed during the first pandemic,^[28] this study highlighted that those who habitually wore masks reported higher levels of FCV-19 than those who did not comply with mask regulations. This fact could reveal that COVID-19 is commonly associated with severe adverse feelings, including fear, anger, or depression, but the influence of individuals' emotional strength and convictions is essential to deepen the understanding of the psychiatric and psychological consequences of the pandemic.^[29]

On the other hand, a study conducted in New Zealand, a country that shares historical ties with the UK, found that depression and anxiety were negatively affected during the first ten weeks of social distancing of the COVID-19 pandemic. This was evident in the mean scores obtained in that study for depression and anxiety during the COVID-19 pandemic, which significantly exceeded those obtained in normal epidemiological situations.^[30]

Although age was not a determining factor in the present study, data from the European COVID Survey highlighted that in countries such as Italy or the UK, people aged 18 to 29 years who had been infected with the new coronavirus had high prevalence rates of depression and anxiety in all waves.^[31]

With regard to age, a study in New Zealand, mentioned above, revealed that, although the most severe symptoms of the disease tend to develop in older people, it was a group of young people aged 18 to 24 years who were disproportionately more affected and more likely to suffer anxiety, stress, and depression associated with COVID-19. One explanation for this phenomenon could be that many young students experienced academic delays and significant changes in daily routine during the.^[32] Other research highlights that younger populations tend to have poorer mental health outcomes in general.^[33]

With regard to the sex variable, it is worth mentioning that in all the articles reviewed as well as in the present study, the level of anxiety and, in general, mental health problems, was higher in women than in men. For example, a study by Zaninotto et al reported a greater deterioration of mental health in the general population in the UK^[34] in line with a study conducted in Spain^[17] based on the AMICO scale, which concluded that the prevalence of symptoms of psychological distress and affective disorders in Spain proves that women present some type of mental health problem in 14% of the population, compared to 7.2% of men. This may be due to the fact that around 70% of care work tends to fall on women, which may have increased due to the situation of confinement experienced with the consequent closure of schools and teleworking.^[17]

As for the salary variable, which has also been significant in the present study, an analysis conducted in the UK revealed that the restrictions also impacted people's socioeconomic

position, with an increase in poverty.^[34,35] In addition to this, it was also found that people with mental health problems are substantially more likely to develop infectious diseases such as pneumonia and to suffer cognitive impairment,^[36] so lower socioeconomic status not only affects the quality of mental health but also goes hand in hand with being more prone to illness. When the influence of socio-demographic variables decreases, those individuals who showed higher levels of distress also reported having had COVID-19 and a greater number of severe symptoms.^[37]

On the other hand, the greater impact of living with restrictions had a direct impact on deteriorating physical and mental health, and social isolation exacerbated the poor mental health status that already existed in the UK population.^[38] In this sense, the findings by Janiri et al confirm the need to be concerned not only with protecting the physical health of health professionals but also with the effects on their mental health, something that has been confirmed by a large number of studies.^[39] Restrictions also impacted people's socioeconomic position, so it is not surprising that the majority of the sample represented in this study chose not to self-confine.^[40] Lastly, although only 14.5% of the sample was vaccinated with both doses at the time of the questionnaire, a UK study found that around 82% of UK adults are willing to receive a COVID-19 vaccine if offered.^[41]

Limitations of the present study include the fact that non-probability sampling precludes accurate knowledge of the representativeness of the sample. On the other hand, researchers must rely on the veracity of the data provided by participants, as these were self-administered questionnaires. Also, during the pandemic, there have been situations of greater restrictions depending on the cumulative incidence of COVID-19, so the response of the participants may have also been influenced by the time at which the questionnaires were completed. Besides, as the data collection tool is telematic, there may have also been an accessibility bias, as older people and/or people at risk of social exclusion may not have been able to answer the questionnaire. On the other hand, the higher number of women in the sample implies another limitation in itself. Therefore, it is necessary to examine, through a new field study, whether the "sex" variable may have such an effect on the construct validation of the AMICO_UK scale from a sex perspective.

5. Conclusion

This study highlights the need for action by health managers to provide care and support to the general population of the UK in order to mitigate the negative mental health effects caused by COVID-19.

The results of the present study have shown an average level of anxiety and FCV-19 in the general UK population, as measured by the AMICO UK scale.

In addition, the regression study showed that women who reported not earning enough to make ends meet, who had not self-confined, and who had received only 1 dose of the vaccine had higher levels of anxiety and FCV-19.

Author contributions

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