RESEARCH ARTICLE

Evaluation of the mental health of care home staff in the Covid-19 era. What price did care home workers pay for standing by their patients?

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Abstract

Background: The characteristics of this pandemic increase the potential psychological impact on care homes workers (CHWs). The aims of this study were to analyse the mental health and health-related quality of life (HRQoL) of a broad sample of CHWs in Spain and to identify potential factors that have a significant effect on their mental health and HRQoL.

Method: This descriptive study comprised 210 CHWs who completed the Generalized Anxiety Disorder 7-item Scale, the Patient Health Questionnaire-9, the Impact Event Scale-Revised, the Insomnia Severity Index, and the Health-related Quality of Life Questionnaire. Sociodemographic and clinical data in relation to COVID-19 were also recorded. Descriptive statistics, univariable analysis and multivariable linear regression models were applied to identify factors associated with mental health and HRQoL.

Results: Of total, 86.19% of participants were female; 86.67% were aged under 55 years; 11% were physicians and 64.19% were nurses or auxiliaries; 77.62% have themselves tested positive for Covid-19; and 67.94% of CHWs have directly treated patients with Covid-19. 49.28% had clinical depression; over half (58.57%) had clinical anxiety; 70.95% had clinical stress; and 28.57% had clinical insomnia. Increased use of tranquilizers/sedatives appears to be an explanatory variable of suffering greater anxiety, depression, stress and insomnia, and of having a worse HRQoL amongst our CHWs.

Conclusions: Our study confirms that symptomatology of anxiety, depression, stress, insomnia and HRQoL were affected amongst CHWs during the Covid-19 pandemic.

KEYWORDS
anxiety, care home workers, depression, health-related quality of life, stress

Key points

- Despite the enormous burden of distress and potentially traumatic events experienced by care home workers, almost no studies have yet been carried out documenting the prevalence of mental health problems amongst this population group.

- Symptomatology of anxiety, depression, stress, insomnia and health-related quality of life were affected amongst care homes workers during the COVID-19 pandemic.

Why do this paper matter?
- It will be necessary to monitor care homes workers—particularly those most at risk—and our data, together with other current studies, can help to establish screening, support and treatment strategies for improving their mental health.

1 | INTRODUCTION

Older adults have been the group most severely affected by the current SARS-CoV-2 (Covid-19) pandemic. In Spain, according to data where the age of the patient is known, over 70s accounted for 37% of all known Covid-19 infections, 48% of all hospital admissions, 33% of ICU patients and 86% of all deaths.[1] Care homes have been particularly badly hit and older adults living in care homes probably represent 63% of all deaths from the pandemic.[2] During the first wave of the virus, approximately 20,000 care home (CH) home residents died in Spain.[3]

Residents and staff in care homes often lack immediate access to the same knowledge, medicine and equipment as their counterparts in hospitals, exacerbating an already tense situation. Many care homes were instructed not to send older adults meeting certain medical criteria to hospital,[4] despite having insufficient resources, with back-up healthcare personnel, PPE and diagnostic tests, arriving 'too little, too late.'[4–6] The workload and emotional demands of care home workers were already particularly high,[7] and their associations with psychosocial risks such as burnout, moral distress, and compassion fatigue are well known.[5,8,9] In many care homes, the workload has now increased exponentially due to the Covid-19 crisis.[10] The increased burden has been not only physical but also emotional.[5] The high rate of infections and deaths within care homes, combined with having to witness residents' social isolation and its attendant emotional consequences, has dealt a severe blow to care home employees.[10,11] These workers have also been subjected to significant social pressure, from relatives of the residents and the relevant health authorities (regional and community health departments), who have introduced additional control and monitoring of these nursing facilities. Nonetheless, to date, most empirical studies have focused on investigating health professionals in a hospital context.[5,12,13]

Despite the enormous burden of distress and potentially traumatic events experienced by care home workers, almost no studies have yet been carried out documenting the prevalence of mental health problems amongst this population group. We have only identified two quantitative,[14,15] and a small number of qualitative studies on care experiences[16,17]; indeed, most studies have focused on research into healthcare workers in a hospital context.[18,19]

Due to the high incidence and fatal consequences of the pandemic in care homes, it is essential to investigate how it is affecting workers at a psychological level, in order to establish short-,

medium- and long-term preventative measures. In this study, we propose:

- to analyse the prevalence of self-reported symptoms of anxiety, depression, stress and insomnia among staff working in care homes during the first Covid-19 outbreak and its impact on their health-related quality of life (HRQoL);
- to identify potential factors having a significant effect on anxiety and depression, stress, insomnia and HRQoL, measured using validated questionnaires amongst a broad sample of workers in care homes.

2 | METHODS

2.1 | Participants

This is a descriptive study, with a sample group comprising 210 Spanish health workers, recruited by non-probabilistic sampling (snowball sampling and emails or WhatsApp/mobile app messages) among care homes.

2.2 | Measures

Participants provided *sociodemographic data*, including age, gender, professional profile, years of experience. *Covid-19-related clinical data* included having been in quarantine, having tested positive and psychological support received at this time in relation to the current situation. They also completed Spanish-language versions of five self-administered *perception-of-health* questionnaires:

- *Generalized Anxiety Disorder 7-item (GAD-7) Scale.* The GAD-7 scale is a seven-item self-related questionnaire that assesses general anxiety disorder.[20] The items are scored on a four-point scale. We took 10 points as the cut-off point in this study.[21,22] The questionnaire has been translated into and validated in Spanish and shows good internal consistency and adequate test–retest reliability.[23]
- *Patient Health Questionnaire-9 (PHQ-9).* The PHQ-9 is a self-administered questionnaire designed to measure depression and depression severity.[24] The nine items are scored on a four-point scale referring to the past 2 weeks. It has been validated in the

Spanish population.[25] We took 10 points as the cut-off point in this study.[21,26]

- *Impact Event Scale-Revised (IES-R).* The IES-R is a self-administered scale designed to assess perceived stress to the experienced traumatic event.[27] The 22 items are scored on a five-point Likert scale referring to the last 7 days. Twenty-four points was taken as the cut-off point in this study. It has been validated in the Spanish population.[28]
- *The Insomnia Severity Index (ISI).* The ISI[29] is a brief self-report instrument measuring a patient'|'s perception of the severity of his/her insomnia. The validated Spanish version of the ISI was used to assess the subjective severity of insomnia over a 1-week period.[30] Each item was rated on a five-point Likert scale.[29]
- *Health-Related Quality of Life Questionnaire (EQ-5D).* The self-report version of the *EQ-5D*[31] consists of two parts: the EQ-5D-5L descriptive system and the EQ Visual Analogue scale. The descriptive system comprises five dimensions. Each dimension has five answer options that define different levels of severity. It has been validated in the Spanish population.[32]

2.3 | Procedure

Data were collected by means of an online survey, between April and September 2020. A researcher from the Galdakao-Usansolo Hospital Research Unit directly emailed several Spanish care homes, who facilitated contact with their staff and with medical personnel who had been working in these centres during the Covid-19 outbreak. Clinical and non-clinical health care workers (CHWs) were included (physicians, nurses, administrative personnel, cooking and cleaning staff, physiotherapists, psychologists, etc.).

Before beginning the survey, all participants were asked to read the information on the study—including objectives, data confidentiality and an email address to contact in the event of any queries—and were required to give their electronically informed consent to complete the questionnaires.

Participants were asked to provide sociodemographic data and information related to Covid-19 and to complete the Spanish-language versions of five self-administered instruments. Eligible personnel included health workers who were in active employment at the time of the pandemic. Participants who did not give their informed consent were excluded. Participation in the study was anonymous and voluntary, and all information was kept confidential. The study was approved by the Ethics Committee of the hospital (Galdakao-Usansolo Hospital, Protocol 08/20).

2.4 | Statistical analysis

Descriptive statistics for the entire sample were calculated using frequencies and percentages for categorical data and by means and standard deviations for continuous variables. The scores of the questionnaires were treated as continuous variables, and

dichotomous variables were created to indicate clinical values of anxiety, depression, stress and insomnia, based on the published cut-off points of the corresponding score.

Univariable analyses were first performed to identify, among sociodemographic and Covid-19-related variables, factors associated with (1) the quality-of-life score and (2) having clinical values of anxiety, depression, stress and insomnia, using χ^2 or Fisher's exact test for categorical data and Student t test or non-parametric Wilcoxon test for continuous variables. Variables that were significant at 0.20 level were considered as potential independent variables to fit (1) a multiple linear regression model to predict the outcome of the quality-of-life score and (2) multivariable logistic regression models to predict clinical values of anxiety, depression, stress and insomnia. In all cases, the final predictive factors were those that were significant at 0.05 level.

The coefficient of determination R^2 was calculated to evaluate the percentage of the quality-of-life score variation explained by the model. Estimates and 95% confidence intervals were calculated. The predictive accuracy of each of the logistic regression models was determined by calculating the area under the receiver-operating curve (AUC) and calibration of these models was assessed using the Hosmer and Lemeshow test. The odds ratio (OR) and 95% confidence intervals (95% CI) were calculated.

All effects were considered statistically significant at $p < 0.05$. All statistical analyses were performed using SAS for Windows statistical software, version 9.4 (SAS Institute, Inc.) and R© software version 4.0.0.

3 | RESULTS

The study comprised 210 participants, 181 female (86.19%) and 29 male (13.81%). Table 1 shows sociodemographic and clinical data in relation to the Covid-19 pandemic, and mental health characteristics of the CHWs. 13.33% of the participants were older than 55; 11% were physicians and 64.59% were nurses or auxiliaries; and 59.42% had more than 10 years' work experience. 92.38% of the data were obtained during the months of restrictions on movement of people in Spain.

With regard to Covid-19 data, 67.94% of the CHWs had directly treated patients with Covid-19, and 77.62% had themselves tested positive for Covid-19. Only 29.52% felt that they had been sufficiently protected in their job, and 15.24% had received psychological attention in relation to Covid-19 in their workplace. In relation to the consumption of toxic substances, the data show a 22.86%, 11% and 20.57% increase, respectively, in the consumption of tobacco, alcohol and tranquilizers/sedatives. As measured by the PHQ-9 score, 49.28% of CHWs had clinical depression; 58.57% had clinical anxiety; 70.95% had clinical stress and 28.57% had clinical insomnia (Table 2). Additionally, mental health and HRQol data of CHWs according to the service (care homes, frontline services, primary care), and clinical values of depression, anxiety, stress and insomnia questionnaires by service are shown in Table S3 and Figure 1, respectively.

TABLE 1 Descriptive analysis of sociodemographic data and clinical data in relation to Covid-19 (n = 210)

	N (%)	Missing (%)
Total	210	
Sociodemographic data		
Gender (male)	29 (13.81)	0 (0)
Age		0 (0)
<40	74 (35.24)	
40–55	108 (51.43)	
>55	28 (13.33)	
Professional profile		1 (0.48)
Medical doctor	23 (11)	
Nurses/nursing assistants	135 (64.59)	
Other	51 (24.4)	
Years of experience		3 (1.43)
<5	41 (19.81)	
5–10	43 (20.77)	
>10	123 (59.42)	
Response date		0 (0)
During state of alarm (until 21 June 2020)	194 (92.38)	
Subsequent to state of alarm	16 (7.62)	
Response month		0 (0)
May	181 (86.19)	
June	16 (7.62)	
August	13 (6.19)	
Clinical data in relation to Covid-19		
Have you been in quarantine? (Yes)	57 (27.14)	0 (0)
Positive PCR		0 (0)
Yes	163 (77.62)	
No	10 (4.76)	
I have not been tested	37 (17.62)	
Have you worked directly with Covid-19 patients (yes)	142 (67.94)	1 (0.48)
Have you worked in any service other than your own (yes)	67 (32.21)	2 (0.95)
Sufficient knowledge about how to do your job (yes)	144 (68.57)	0 (0)
Do you have you enough knowledge about protection measures (yes)	147 (70.33)	1 (0.48)
Do you feel that you have been sufficiently protected in your activity?		0 (0)
No	66 (31.43)	
Sometimes	82 (39.05)	
Yes	62 (29.52)	
Have you received psychological care/support in your workplace? (yes)	32 (15.24)	0 (0)
Increased use of tranquilizers/sedatives in the last weeks (yes)	43 (20.57)	1 (0.48)
Increased alcohol consumption in the last weeks (yes)	23 (11)	1 (0.48)
Increased tobacco use in the last weeks (yes)	48 (22.86)	0 (0)
Increased drugs consumption in the last weeks (yes)[a]	1 (0.48)	0 (0)

[a]This variable has not been added in the multivariable analysis because there is only one professional who answered 'yes'. Even so, it has been analysed and is not significant in any case.

	N (%)	Missing (%)
Health-related Quality of Life (EuroQol-5D)		
From 0 to 100, rate your state of health TODAY (Item 6)[a]	69.71 (19.63)	2 (0.95)
Score EuroQol-5D[a]	0.77 (0.19)	0 (0)
Depression symptoms (PHQ-9)		
Score PHQ-9[a]	10.11 (6.4)	3 (1.43)
Classification scores PHQ-9		3 (1.43)
Normal (0–4)	42 (20.29)	
Mild (5–9)	63 (30.43)	
Moderate (10–14)	53 (25.6)	
Moderately severe depression (15–19)	25 (12.08)	
Severe (20–27)	24 (11.59)	
Clinical depression—score ≥10 (yes)	102 (49.28)	3 (1.43)
Anxiety symptoms (GAD-7)		
Score GAD-7[a]	10.73 (5.14)	0 (0)
Classification scores GAD-7		0 (0)
Normal (0–4)	25 (11.9)	
Mild (5–9)	62 (29.52)	
Moderate (10–14)	78 (37.14)	
Severe (15–21)	45 (21.43)	
Clinical anxiety—score ≥10 (yes)	123 (58.57)	0 (0)
Distress symptoms (IESR-22)		
Score IESR-22[a]	38.56 (22.27)	0 (0)
Classification scores IESR-22		0 (0)
Normal (0–8)	23 (10.95)	
Mild (9–25)	41 (19.52)	
Moderate (26–43)	57 (27.14)	
Severe (44–88)	89 (42.38)	
Clinical distress—score ≥24 (yes)	149 (70.95)	0 (0)
Insomnia symptoms (ISI-7)		
Score ISI-7[a]	10.75 (6.46)	0 (0)
Classification scores ISI-7		0 (0)
Absence (0–7)	67 (31.9)	
Subthreshold (8–14)	83 (39.52)	
Moderate (15–21)	47 (22.38)	
Severe (22–28)	13 (6.19)	
Clinical insomnia—score ≥15 (yes)	60 (28.57)	0 (0)

TABLE 2 Descriptive analysis of mental health and health-related quality of life data (n = 210)

[a]Results shows as mean (standard deviation).

Scores on the symptomatology of anxiety, depression, stress, insomnia and quality of life according to a *univariable analysis* of the sociodemographic date relative to the Covid-19 pandemic and CHWs' mental health variables are shown in Table S1. We have also included the categorised scores (clinical vs. non-clinical) according to a *univariate analysis* of the sociodemographic data relative to the Covid-19 pandemic and CHWs' mental health variables (Table S2).

FIGURE 1 Clinical values of depression, anxiety, stress and insomnia questionnaires by service (care homes, frontline services, primary care)
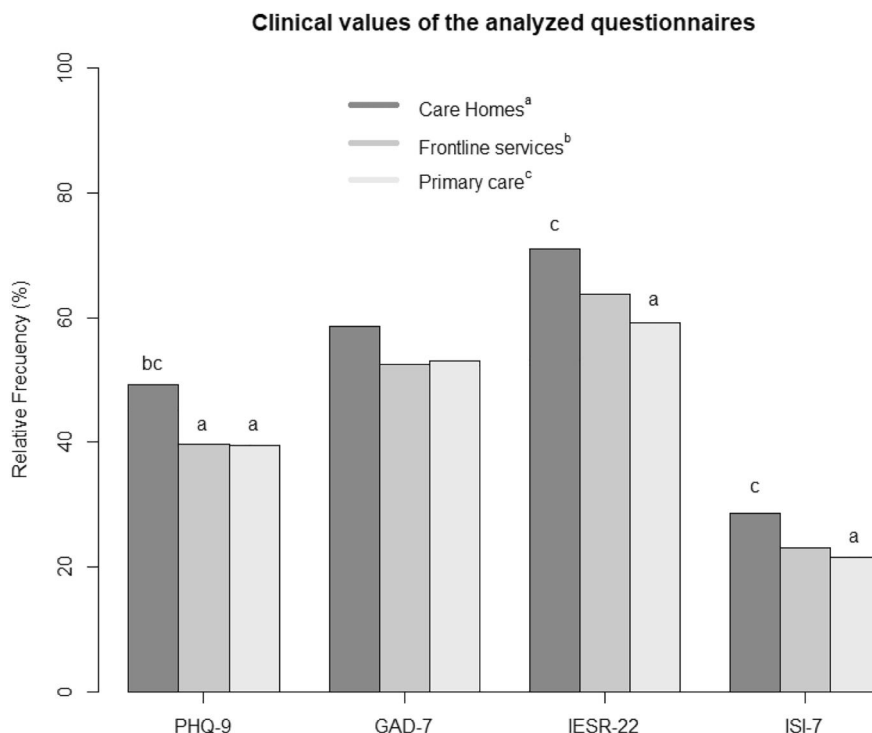
Results of *multivariable* analysis for the EuroQol-5D are presented in Table 3. In this linear regression model for HRQoL, scores for gender (0.03), being sufficiently protected (<0.0003), increased use of tranquilizers (<0.0001), showed a significant negative association with the EQ-5D total scores. Results of *multivariable* analysis for depression, anxiety, stress and insomnia are presented in Table 4. In the logistic regression model for depression, scores for gender (0.01), having sufficient knowledge about how to do the job (<0.005), being sufficiently protected (0.006), increased use of tranquilizers (0.005) and increased alcohol consumption (0.006) showed a significant positive association with the PHQ-9 total scores. In the logistic regression model for anxiety, scores for gender (0.02), professional profile (0.02), working in another service (0.004), having sufficient knowledge about how to do the job (0.004), increased use of tranquilizers (0.004) and increased alcohol consumption (0.04) showed a significant positive association with the GAD-7 total scores. In the logistic regression model for stress, scores for years of experience (0.003), being sufficiently protected (<0.0001), and increased use of tranquilizers (0.009) showed a significant positive association with the IESR-22 total scores. In the logistic regression model for insomnia, scores for having sufficient knowledge about how to do the job (0.004), being sufficiently protected (0.002), increased use of tranquilizers (0.002) and increased tobacco use (0.003) showed a significant positive association with the ISI-7 total scores.

4 | DISCUSSION

To the best of the authors' knowledge, only one study has been conducted to identify factors for symptomatology of anxiety and stress,[14] and no previous studies have been carried out to identify factors for symptomatology of depression, insomnia and HRQoL among a group of CHWs using validated questionnaires. The goal of this study is to assess mental health and identify potential factors that have a significant effect on anxiety and depression, stress, insomnia and HRQoL, measured using validated questionnaires among a broad sample of workers in care homes.

- With respect to sociodemographic variables, 86.19% of participants in our study were *female*. This higher proportion of female participation is also seen in other studies,[14] with very similar percentages (85.4%).
- Our study suggests that providing care to Covid-19 patients in care homes has a marked *emotional impact*; 58.57% of CHWs appeared to suffer from moderate-to-severe symptoms of anxiety (GAD-7) and 69.52% from moderate-to-severe symptoms of distress (IES-R). This is higher than the figures recorded in the study by Riello et al.[14] with data from 1071 nursing and care homes in northern Italy, where 22% and 40% of participants exceeded the established threshold for moderate-to-severe symptoms on the GAD-7 and IES-R, respectively. Our results are also higher than those from the other publication on CHWs with quantitative data,[15] mental health symptoms, on average, lay within the normal range of stress, anxiety and depression, 35.4% of CHWs reported clinical elevations on at least one scale. Comparing clinical data by services (care home, frontline service and primary care) there is statistically differences in clinical depression between CHWs and frontline and primary care workers. There is also statistically differences in clinical stress and clinical insomnia between CHWs and primary care workers.

TABLE 3 Multiple linear regression model for Health-Related Quality of Life EuroQol-5D

	Estimate	CI (95%)	p
Gender (female)	−0.075	(−0.067, −0.032)	**0.03**
Do you feel that you have been sufficiently protected in your activity?			**0.001**
Yes	Ref.	Ref.	–
Sometimes	−0.056	(−0.048, −0.011)	0.06
No	−0.114	(−0.087, −0.049)	**0.0003**
Increased use of tranquilizers/sedatives (yes)	−0.143	(−0.149, −0.115)	**<0.0001**
$R^2 = 0.19$			

Note: The coefficient of determination R^2 was calculated to evaluate the percentage of the quality of live score variation that the model explained. Significance threshold was 0.05.

Abbreviations: CI 95%, confidence interval of 95%; Ref, reference category.

TABLE 4 Multivariable logistic regression models for the depression, anxiety, stress and insomnia measures

	PHQ9 (depression)			GAD7 (anxiety)			IESR22 (stress)			ISI7 (insomnia)		
	OR	95% CI	p	OR	95% CI	p	OR	95% CI	p	OR	95% CI	p
Gender (female)	4.67	(1.45–15.12)	**0.01**	3.15	(1.22–8.17)	**0.02**						
Professional profile						**0.02**						
Doctor				1.40	(0.46–4.31)	0.56						
Nurses/nursing assistants				2.79	(1.31–5.99)	**0.008**						
Other				Ref.	Ref.	–						
Years of experience									**0.003**			
<5							2.59	(0.96–6.98)	0.06			
5–10							Ref.	Ref.	–			
>10							4.39	(1.88–10.23)	**0.0006**			
Have you worked in any service other than your own? (Yes)				2.88	(1.41–5.89)	**0.004**						
Sufficient knowledge about how to do your job (no)	2.83	(1.37–5.87)	**0.005**	2.49	(1.20–5.16)	**0.01**				3.24	(1.45–7.23)	**0.004**
Do you feel that you have been sufficiently protected in your activity?			**0.006**						**<0.0001**			**0.002**
Yes	Ref.	Ref.	–				Ref.	Ref.	–	Ref.	Ref.	–
Sometimes	1.93	(0.85–4.39)	0.12				3.49	(1.61–7.57)	**0.002**	2.06	(0.70–6.12)	0.19
No	4.32	(1.76–10.64)	**0.001**				8.07	(3.04–21.39)	**<0.0001**	6.71	(2.12–21.23)	**0.001**
Increased use of tranquilizers/sedatives (yes)	4.11	(3.18–5.3)	**0.005**	3.65	(1.52–8.79)	**0.004**	4.90	(1.46–16.41)	**0.009**	3.69	(1.60–8.51)	**0.002**
Increased alcohol consumption (yes)	2.7	(2.04–3.58)	**0.006**	3.94	(1.09–14.25)	**0.04**				2.85	(1.01–8.12)	**0.05**
Increased tobacco use (yes)										4.08	(1.71–9.69)	**0.002**
AUC (CI 95%)/H–L	0.82 (0.76–0.87)/0.8633			0.77 (0.71–0.84)/0.1663			0.78 (0.72–0.85)/0.7871			0.86 (0.80–0.91)/0.4880		

Note: Significance threshold was 0.05.

Abbreviations: AUC, area under the receiver-operating curve; CI 95%, confidence interval of 95%; H–L, *p*-value corresponding to Hosmer–Lemeshow test; OR, odds ratio; Ref, reference category.

- It should also be noted that the *rate of Covid-19 infection among CHWs* is enormously high: 77.62% of participants from our sample reported having been infected, not taking into account those who have not been tested. One possible explanation for this major difference with the findings of the study by Riello et al.[14] may be that whereas the majority of participants (88.3%) in that study reported having had continuous access to PPE, only 29.52% of CHWs in our sample felt sufficiently protected in their activity.

- Likewise, the proportion of personnel coming into direct contact with Covid-19 patients is also very high (67.94%). Thus, amongst our CHWs, *having worked directly with Covid-19 patients* appears to be an explanatory variable of suffering greater anxiety, depression, stress and insomnia, and having a worse HRQoL. It is estimated that between 47% and 51% of deaths (to 23 June) occurred in social services centres, as compared to 39% in Germany.[33]

- The effects of *stress on increased use of drugs/toxic substances* has been well demonstrated,[34] particularly among health care workers, due to their easier access to psychotropic drugs (increased risk of use of opiates/benzodiazepines/hypnotics)[35] and a fear of professional stigma that can prevent them from seeking psychological treatment.[36] Similarly, in the SARS-CoV-1 epidemic, an increased risk of alcohol use disorder was reported among primary care workers.[37] Our multivariable analysis reflects a relationship between increased drug/tranquilizers/sedative use and worse results in depression, anxiety, stress, insomnia and HRQoL. It should be taken into account that the lockdown measures imposed between March and June in other European countries were not as extreme as in Spain, where people were only allowed to leave their homes to go to work or to buy food and medicines, and borders were closed. This may have complicated the issue of increased drugs use, since without the possibility of drawing on the social support of the wider family environment and friends, or even of performing physical exercise (which would have been a good coping strategy), the use of drugs or toxics was resorted to instead.

- A meta-analysis and a Spanish study found that factors protecting against psychological distress included having sufficient medical resources and accurate health information,[38,39] since clear and effective guidance is key to staff confidence and reassurance during a crisis.[40] However, in our study only 29.52% of CHWs felt that they were *sufficiently protected in their job*; 39.05% had not felt protected, and 31.43% had only sometimes felt protected. There is also a relationship between this variable and anxiety, depression, stress, insomnia and HRQoL.

The explanations for our data are likely to be multifactorial; inter alia, the fact that CHWs were much later in receiving PPE and instructions/care protocols than HCWs in general and hospital staff in particular; their much higher infection rate; a more intense and long-lasting relationship with residents prior to infections; and the fact that this group received most blame for infections.

- CHWs *were unable to wear suitable PPE until several weeks after the total lockdown.* The older adults were forced to stay in their rooms throughout the day, without going out or receiving visits from relatives. In other words, they had to be treated by staff who, as the only vector for entry of the virus into the care homes, were unable to protect them adequately by wearing the recommended PPE.[41] This created situations of enormous frustration among CHWs. Visitors are currently prohibited from all care homes nationwide, but staff fear that their own movements might transmit the disease.[4]

- In addition, *infection rates were much higher among CHWs*, leading to more sick leave with a resulting additional increase in workload.[5]

- *The relationship between CHWs and residents was already more intense and long-lasting prior to the pandemic.* Staff look after their residents for months or years, building close relationships with them.[42] This added familiarity can make the emotional toll of caring for residents in these circumstances all the more challenging.[16]

- To make matters worse, care home workers have had to work in conditions that were already precarious before the pandemic and suffered a *lack of social, economic and professional recognition* compared to other healthcare professionals in the health system.[5,43] We were surprised by the scarcity of publications on the mental impact of the pandemic on CHWs, using quantitative self-reported outcomes, as compared to the numerous studies carried out on HCWs in a hospital context. Thus, even the number of publications reflects the low priority given to this sector.

- Our study has several strengths. This study represents a unique effort to evaluate the degree and correlates of the mental health and HRQoL imposed by providing care for residents in care homes during the Covid-19 pandemic, using five validated instruments to determine their mental health. Some limitations of our study must also be noted. It is possible that participants in the study may have experienced a higher symptomatology than those CHWs who opted not to participate. Another limitation concerns the overrepresentation of women in our sample group. An additional limitation is the fact that we performed the assessment at only one point in time, which prevented us from observing changes in the CHWs' mental health over time or draw any conclusions regarding causation.

5 | CONCLUSIONS

Although this situation is shared by many countries, in Spain the pandemic has had a particularly significant impact due to the increased longevity of the population. The sector in which this impact has been most notable, and most visible, has been that of care homes. Covid-19 has been devastating for the care home workforce. Staff and clinicians working in care homes have risked their own and their families' health and lives every day to care for vulnerable older adults under the most stressful circumstances.[44] CHWs from several care homes in Spain (such as Estella and Lleida) even voluntarily confined

themselves with the older adults in their care during lockdown to create 'safe' spaces for the residents.

The pandemic has had devastating effects for many care home residents and their families, as well as for care home staff and clinicians.[45,46] It will be necessary to monitor CHWs–particularly those most at risk—and our data, together with other current studies, can help to establish screening, support and treatment strategies for improving their mental health.

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CONFLICT OF INTERESTS

The authors declare that there are no conflict of interests.

DATA AVAILABILITY STATEMENT

Data available on request from the authors. The data that support the findings of this study are available from the corresponding author upon reasonable request.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of this article.

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