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Article

The Psychological Impact of the COVID-19 Pandemic in Spain: A Longitudinal Study

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Abstract

Background: This study aims to longitudinally assess the psychological impact of the COVID-19 pandemic in the general Spanish population. It uses four assessment points: two weeks after the start of confinement, one month after, two months after, and one year after the first evaluation. **Methods:** Evaluations were conducted through an online survey, with a sample of 3,480 people at the first data collection and 1,041, 569, and 550 people at successive evaluation points. Depressive symptoms (PHQ-2), anxiety (GAD-2), post-traumatic stress (PCL-C-2), social support (EMAS), loneliness (UCLA-3), and discrimination (InDI-d) were evaluated. **Results:** Significant changes were found in the variables depression and anxiety with a greater presence of this kind of symptomatology after one year ($p < .01$). There were also significant changes in the variable social support, which showed a substantial reduction after one year ($p < .001$). Similarly, there were significant variations in the variable intersectional discrimination ($p < .001$), with greater levels of discrimination. The temporal models show no significant differences in terms of post-traumatic symptomatology ($p = .12$) or loneliness ($p = .19$). **Conclusions:** The pandemic had a negative impact on mental health and these effects were further exacerbated one year later.

Keywords: Coronavirus, COVID-19, quarantine, longitudinal, mental health.

Resumen

Impacto Psicológico de la Pandemia de la COVID-19 en España: un Estudio Longitudinal. **Antecedentes:** el objetivo es evaluar el impacto psicológico de la pandemia generada por la COVID-19 en la población general española longitudinalmente en cuatro momentos: tras dos semanas del inicio del confinamiento, al mes, a los dos meses y al año. **Método:** las evaluaciones se realizaron mediante una encuesta online, se siguió a una muestra de 3.480 personas en la primera recogida de datos y de 1.041, 569 y 550 personas en los sucesivos momentos de evaluación. Se evaluó la presencia de síntomas depresivos (PHQ-2), de ansiedad (GAD-2), de estrés postraumático (PCL-C-2), el apoyo social (EMAS), la soledad (UCLA-3) y la discriminación (InDI-D). **Resultados:** se han producido cambios significativos en las variables de depresión y ansiedad con una presencia mayor de dicha sintomatología al año ($p < .01$), así como en la variable de apoyo social, que muestra una reducción significativa un año después ($p < .001$), y en la discriminación interseccional, con una mayor discriminación ($p < .001$). Los modelos temporales no muestran diferencias significativas en cuanto a sintomatología postraumática ($p = .12$) ni soledad ($p = .19$). **Conclusiones:** la pandemia ha tenido un impacto negativo en la salud mental y estos efectos son todavía peores un año después.

Palabras clave: coronavirus, COVID-19, cuarentena, longitudinal, salud mental.

In May 2021, the World Health Organization (WHO) confirmed more than 158 million cases of people infected with COVID-19 since the onset of the pandemic, with more than three million deaths (WHO, 2021). Although the availability of vaccines has improved the situation concerning the pandemic, allowing us to begin to think about overcoming the health crisis, the impact of this virus has been devastating throughout societies all over the world. With regards to Spain, since March 2020 we have faced both health and socio-economic crises. After the first period of confinement, we have confronted successive waves of the pandemic. Every wave has had even more cases than the first, and we have had to live for more than a year with serious restrictions on mobility, work environments, social contacts, along with health protection measures.

Numerous scientific articles have reported the impact on adults' mental health during the first months of COVID-19 related confinement. Some reviews and meta-analyses, mainly focused on cross-sectional studies, report a prevalence of symptoms of anxiety, depression, or post-traumatic stress. These symptoms seem to variate greatly, ranging from 15% (Cénat et al., 2021), to 20-30% (Nochaiwong et al., 2021; Wu et al., 2021) and even reaching almost 45-47% (Deng et al., 2021). However, in the review and meta-analysis by Prati and Marcini (2021), focused only on longitudinal studies, 25 papers were analysed showing that short-term confinement had small effects on mental health symptoms (anxiety and depression). There was great heterogeneity in the studies and no significant moderators were found. Again, this indicates that once the initial crisis of the pandemic has passed, uniformly detrimental effects are not found.

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In Spain, we have a study with measures before the pandemic and during the first weeks of confinement. This paper reveals a worsening of positive affect symptomatology with a greater general impairment in women (Fernández-Abascal & Martín-Díaz, 2021). In addition, our research team observed that during the first months of confinement, symptoms of anxiety, depression, and post-traumatic stress in the general population showed downward trends as we moved towards the new normal. These trends were significant for depression, and post-traumatic stress, with loneliness and psychological well-being as the main predictors. Also, women and young people were found to be particularly vulnerable (González-Sanguino et al., 2021). Other Spanish studies, which are limited to the months of confinement, were found. These studies do not include 12-month follow-up, but they find changes in variables such as anxiety and depression (Ripoll et al., 2021), increased psychological symptomatology (Hernández-López et al., 2021) and changes in the variables of loneliness and psychological distress (Losada-Baltar et al., 2021). Furthermore, the study by García-Álvarez et al. (2020), which collected a sample of 21,207 people, found that depressive responses were the most prevalent. Moreover, they were more common in people with an active mental health problem, being female also a risk factor (García-Álvarez et al., 2020).

However, even having these few longitudinal studies published at the national level, we only know the effects of the pandemic in the short term, because these papers are focused on the first months of the crisis. We do not know what the mental health status of the population will be in the medium and long term, after more than a year of living in the new normal. One study conducted in the USA with 23 successive assessments reveal an increase in psychological distress after COVID-19 (Daly & Robinson, 2021). There is also th e "Social Study" of the UK, which has carried out large-scale longitudinal evaluations showing the evolution of the impact on mental health. They showed In their report dated March 25, 2021, how the symptomatology of depression and anxiety seems to rise slightly, after a marked decrease following overcoming the first confinement (Fancourt et al., 2021).

The present study is the first Spanish research that has evaluated longitudinally during a year the effects that the pandemic and alarm situation has had on psychological health in the general population at four points in time: two weeks after the onset of confinement, at one month, at two months (with the onset of deconfinement and return to the new normal), and at 12 months.

Method

Participants

Participants were recruited by sending requests for participation to people belonging to databases of different institutions. This included students and employees of public organizations such as the Complutense University of Madrid and the UCM Chair - Grupo 5 Against Stigma and private organizations such as Grupo 5. To increase the sample size to the widest extent possible, participants were asked to assist in the dissemination of the survey through various social network channels (snowball effect). The percentage of people recruited by this means was small, estimated at less than 5%. In addition, the survey was posted on the website of the UCM Chair - Group 5 Against Stigma: www.contraelestigma.com. A total of 3,480 people participated in the first evaluation (T0). For the successive evaluations, those who had previously agreed to participate in the longitudinal study were contacted by email. We recruited a total of N=1,041 in the second data collection (T1), N=569 in the third evaluation (T2), and N=550 in the fourth evaluation (T3). The inclusion criteria were: 1. Be over 18 years old; 2. Be living in Spain during the emergency health situation derived from COVID-19. 3. Agree to participate in the successive evaluations for the study.

Instruments

- Sociodemographic variables and those variables related to COVID-19 were assessed using questions developed ad hoc. The pandemic-related information collected was as follows: suffering from symptoms or the disease (yes, no); hospital admission; existence or not of infected relatives or close persons; living with an infected person; spending more time confined at home; death of a relative and possibility of attending the funeral or vigil; vaccination; concealment of COVID-19 symptoms; work situation (required to go to the workplace or work from home, type of work related to the pandemic, first-line or other).
- Variables related to use of mental health services during the pandemic: mental health care received (In-person psychiatric/pharmacological, Distance psychiatric/pharmacological, In-person psychotherapy, Distance psychotherapy, Other, No care received) and barriers to accessing mental health services: I felt ashamed of having a mental illness; I was afraid to ask for help because of what others might think about me; I was afraid of being rejected; I was afraid of being discriminated against for having a mental illness; I can manage my problems or symptoms on my own and was able to have a full and satisfying life, despite my mental illness; The problem or symptom got better on its own.
- Depressive symptomatology: was assessed with the Patient Health Questionnaire 2 (Cuestionario de Salud del Paciente, PHQ-2), in its Spanish version (Kroenke et al., 2003; Cano-Vindel et al., 2018). A brief self-report questionnaire that addresses the frequency of depressive symptoms. It consists of 2 Likert-type questions ranging from 0 never, to 3 every day. The original version has a sensitivity of .9 and a specificity of .61. According to the data from the sample of the present study, Cronbach's α is .74.
- Anxious symptomatology: was assessed through the Generalized Anxiety Disorder Scale-2 (Escala de Trastorno de Ansiedad Generalizada, GAD-2) (Kroenke et al., 2007), in its Spanish version (Cano-Vindel et al., 2018). This questionnaire evaluates the presence of anxious symptomatology. It is made up of 2 Likert-type questions ranging from 0 never, to 3 every day. Higher scores indicate more symptomatology. The original version has a sensitivity of .88 and a specificity of .61. According to the data from the sample of the present study, Cronbach's α is .82.
- Post-traumatic stress symptomatology with the Posttraumatic Stress Disorder Checklist civilian version (Weathers et al., 1993) in Spanish. This questionnaire was applied to detect post-traumatic symptomatology. We used a reduced version of two Likert-type items (Lang & Stein, 2005) (PCL-C-2). This version asks about the presence of symptomatology and affectation of the person by certain phenomena related

to the traumatic experience. The answers range from 0 not at all, to 4 extremely affected by the traumatic experience. According to the data from the sample of the present study, Cronbach's α is .88.

- Social support: evaluated using the Multidimensional Scale of Perceived Social Support (EMAS) adapted to Spanish (Landeta & Zumalde, 2002; Zimet et al., 1988). This scale consists of 12 Likert-type items with 7 response alternatives (1 totally disagree, to 7 totally agree). It evaluates the level of perceived social support, identifying where the support comes from and the perception of it. The Spanish version has a Cronbach's α of .89. According to the data from the sample of the present study, Cronbach's α is .91.
- Loneliness: measured using the 3-item version of the UCLA Loneliness Scale (UCLA-3) in its Spanish version and self-administered (Russell, 1996; Velarde-Mayol et al., 2016). It has three items in Likert-type format with three response options (1 almost never, 2 sometimes, 3 often). This scale address three dimensions of loneliness: relational connectedness, social connectedness, and self-perceived isolation. The Spanish version presents a Cronbach's α of .95. According to the data from the sample of the present study, Cronbach's α is .76.
- Discrimination: it was assessed using the Intersectional Discrimination Index in Everyday Life (InDI-D) (Scheim & Bauer, 2019), in its Spanish version, which was translated by the authors of this study. This scale provides a measure of intersectional discrimination that can be produced by different conditions: gender, ethnicity, mental health diagnosis, and in this case, the presence of COVID-19 was also included. The main scale consisting of 9 Likert-type items with four response options (1 never - 4 many times) was used. The different questions assessed the presence of intersectional discrimination from the beginning of the emergency situation generated by the coronavirus. The higher the score, the more discrimination suffered. According to the data from the sample of the present study, Cronbach's α is .74.

Procedure

A longitudinal study with four evaluations was conducted from March 21, 2020, to March 31, 2021. The first evaluation (T0) was conducted from March 21 to March 29, 2020. It assessed the initial impact of the situation. The second evaluation (T1) was carried out from April 13 to 27, 2020. It covered the evolution of the impact during the hardest moments of confinement with the greatest socio-economic impact. The third evaluation (T2) took place from May 21 until June 4, 2021. It assessed the consequences of confinement and the beginning of the de-escalation of restrictive measures. The fourth and final evaluation (T3) was conducted from March 22 to 31, 2021. It took place during the third state of emergency in Spain which was approved on October 25, 2020, and would conclude on May 9, 2021. At the time of T3 data collection, Spain had administered 8,035,160 doses of the vaccine, 5,314,076 (13.28%) people had received one dose and 2,721,084 (6.8%) people had received the vaccine in full (Ministry of Health, 2021).

The evaluations were conducted through an online survey (80 items, approximately 10 minutes long). The study was conducted in accordance with the Declaration of Helsinki and it was approved by the Deontological Commission of the Complutense University of Madrid (pr_2019_20_029) before its implementation. The evaluation also included the signing of an informed consent form and acceptance of data protection laws from the participants.

Data Analysis

An analysis was conducted across the four evaluations on the outcomes of the main variables.

To analyze the effect of longitudinal measures all available participants in the sample were used, regardless of the number of waves in which they participated. For this purpose, longitudinal linear mixed models were calculated for each psychological variable in the study (PHQ-2, GAD-2, PCL-C-2, EMAS, UCLA-3, and InDI-D).

The random effects were calculated as random slopes (without random intercepts) because the data contained missing values (participants who did not respond to successive surveys) so that the models could be estimated. The model's results include the value of Nakagawa's Ps eudo-*R2* (conditional and marginal). The first one takes both the fixed and random effects into account, while the second considers exclusively the variances of the fixed component. The analyses have been performed using R (v3.5.6) with the lme4 and emmeans packages. Post hoc comparisons were calculated using the estimated marginal means with Tukey adjustment.

Results

Sample Characteristics

The sample in all evaluations consisted of a high proportion of women (75, 81, 81, and 79%), with an average age between 31-59 years (59, 64, 65, and 65%) and the majority of respondents had a partner (74, 75, 75, and 64%). In general, the sample had university or postgraduate studies (67, 72, 75, and 75%). In addition, they were actively working during the evaluations (63, 58, 56, and 70%), and they rated their economic situation as good to very good (59, 60, 65, and 63%).

Furthermore, the majority of people reported not having a previous disease (84, 82, 81, and 81%), nor had they experienced symptoms of COVID-19 (86, 80, 80, and 87%). In contrast, a higher proportion had a family member or close person who had been infected by the virus. This variable shows a significant increase in this percentage at the 12-month evaluation (28, 39, 32, and 69%). The results across the four longitudinal evaluations in the sociodemographic variables, as well as the scores on the main scales, can be found in Table 1.

Longitudinal Changes in the Psychological Impact

The models developed reveal statistically significant differences over time for the variables of depression (PHQ-2) ($p < .001$), anxiety (GAD-2) ($p < .01$), perceived social support (EMAS) ($p < .001$) and intersectional discrimination (InDI-D) ($p < .001$). However, this was not the case for the variables of loneliness (UCLA-3) ($p = .198$) or post-traumatic stress (PCL-C-2) ($p = .122$). Table 2 displays the models for each of the variables analysed, and Figures 1 and 2 show the evolution of the scores over the four evaluations.

Table 1
Sociodemographics and Variable Scores Throughout the Four Evaluations

Variables	T0 N (%)	T1 N (%)	T2 N (%)	T3 N (%)
Gender				
Men	860 (25)	202 (19)	104 (19)	114 (21)
Women	2584 (75)	841 (81)	453 (81)	436 (79)
Age				
18-29	1216 (35)	306 (29)	148 (27)	138 (25)
30-59	2035 (59)	670 (64)	364 (65)	352 (65)
>60	200 (6)	69 (7)	46 (8)	59 (10)
Civil Status				
Single	1900 (55)	542 (52)	268 (48)	142 (26)
Married	1231 (36)	386 (37)	227 (41)	211 (38)
Divorced / Separated	281 (8)	110 (11)	59 (4)	52 (9)
Widow	39 (1)	7 (1)	4 (1)	5 (1)
Couple sharing	1820 (53)	585 (56)	325 (58)	140 (25)
Children				
No	2032 (59)	580 (56)	292 (52)	290 (53)
Yes	1419 (41)	465 (44)	266 (48)	260 (47)
Education				
Elementary	98 (3)	15 (1)	6 (1)	8 (1)
High school	599 (17)	149 (14)	69 (12)	74 (13)
Vocational training	439 (13)	125 (12)	68 (12)	53 (10)
University	1294 (37)	401 (38)	216 (39)	224 (41)
Posgraduate	1021 (30)	355 (34)	199 (36)	191 (35)
Work situation				
Unemployed	283 (8)	92 (9)	54 (10)	42 (8)
Student	655 (19)	180 (17)	86 (15)	71 (13)
Retired	122 (4)	48 (5)	35 (6)	39 (7)
Other	212 (6)	120 (11)	70 (13)	12 (2)
Working	2173 (63)	604 (58)	312 (56)	386 (70)
Economic situation				
Very bad-bad	348 (10)	111 (11)	58 (10)	52 (10)
Good-very Good	1975 (59)	621 (60)	359 (65)	347 (63)
Regular	1042 (31)	304 (29)	137 (25)	144 (26)
Previous illness				
Cardio-vascular	109 (3)	43 (4)	26 (5)	25 (4)
Neurological	56 (2)	23 (2)	12 (2)	9 (2)
Respiratory	169 (5)	53 (5)	27 (5)	25 (4)
Mental health	211 (6)	71 (7)	41 (7)	47 (8)
None of the above	2906 (84)	855 (82)	452 (81)	444 (80)
Covid-19 symptoms				
No	2974 (86)	836 (80)	445 (80)	479 (87)
Yes	477 (14)	209 (20)	113 (20)	69 (13)
Covid-19 relative diagnosis				
No	2474 (72)	638 (61)	380 (68)	170 (31)
Yes	977 (28)	407 (39)	178 (32)	380 (69)
Living with someone infected				
No	3358 (97)	1016 (97)	550 (99)	459 (83)
Yes	93 (3)	29 (3)	8 (1)	91 (17)
PHQ-2 M(SD)	1.60 (1.51)	1.81 (1.43)	1.65 (1.40)	2.11 (1.33)
GAD-2 M(SD)	1.79 (1.63)	1.80 (1.57)	1.73 (1.51)	2.16 (1.51)
PCL-C-2 M(SD)	1.42 (1.84)	1.38 (1.81)	1.18 (1.70)	1.41 (1.80)
EMAS M(SD)	51.74 (8.51)	51.08 (8.82)	51.03 (8.50)	49.84 (9.72)
UCLA-3 M(SD)	4.55 (1.63)	4.53 (1.65)	4.30 (1.52)	4.89 (1.69)
InDI-D M(SD)	0.48 (1.31)	1.22 (2.08)	1.18 (2.04)	0.94 (2.15)

Table 2
LMM Temporal Models for Each of the Analyzed Variables

	F	Num df	Den df	p	Conditional	Marginal[1]
PHQ-2	40.20	1	1426.3	< .001***	.062	.008
GAD-2	9.90	1	1462.9	< .01**	.065	.002
PCL-C-2	2.39	1	1445.5	.122	.072	.001
EMAS	12.72	1	1494.4	< .001***	.141	.003
UCLA-3	1.65	1	1452.5	.198	.092	.000
InDI-D	97.02	1	1122.4	< .001***	.332	.032

[1] Nakagawa's Psuedo-R2 (marginal and conditional); PHQ2 = Patient Health Questionnaire 2; GAD2= Generalized Anxiety Disorder Scale-2; PCLC2 = Postraumatic Stress Dissorder Checklist 2; EMAS = Multidimensional Scale of Perceived Social Support; UCLA3 = UCLA Loneliness Scale; IndiD= Intersectional Day-to-Day Discrimination Index

Table 3
Posthoc Comparisons Calculated Using the Estimated Marginal Means With Tukey Adjustment for the Depression, Anxiety, and PTSD Symptoms

Time		Phq2 Z	Phq2 p	Gad2 Z	Gad2 p	Pclc2 Z	Pclc2 p
0	1	-7.04	<. 001	0.14	.999	1.07	.707
0	2	-4.13	. 001	-0.02	1	3.30	.005
0	3	-11.03	<. 001	-6.76	<.001	-0.43	.973
1	2	1.21	.618	-0.12	.999	2.34	. 090
1	3	-5.41	<. 001	-6.31	<. 001	-1.12	.680
2	3	-5.79	<. 001	-5.49	<.001	-2.91	.019

PHQ2 = Patient Health Questionnaire 2; GAD2= Generalized Anxiety Disorder Scale-2; PCLC2 = Postraumatic Stress Dissorder Checklist 2

Table 4
Posthoc Comparisons Calculated Using the Estimated Marginal Means With Tukey Adjustment for the Social Support, Loneliness, and Intersectional Discrimination

Time		Emas Z	Emas p	Ucla3 Z	Ucla3 p	IndiD Z	IndiD p
0	1	3.91	.001	-0.96	.772	-14.76	<.001
0	2	3.09	.011	1.56	.402	-10.95	<.001
0	3	7.07	<.001	-6.88	<.001	-7.20	<.001
1	2	0.07	.999	2.18	.129	0.31	.99
1	3	3.91	.001	-5.68	<.001	3.35	.005
2	3	3.43	.003	-6.82	<.001	2.70	.035

EMAS = Multidimensional Scale of Perceived Social Support ; UCLA3 = UCLA Loneliness Scale; IndiD= Intersectional Day-to-Day Discrimination Index

For each variable, contrasts between measurements were carried out for each time marker throughout the year. For symptomatology scores, specifically for depression, a significant increase was observed at the second evaluation (Z (T0-T1) = -7.03, $p < .001$). Lastly, the variable increased to a greater extent at the last evaluation at one year (Z (T2-T3) = -5.79, $p < .001$). Regarding anxiety, a significant increase was observed in the last evaluation (Z (T2-T3) = -5.49, $p < .001$). Additionally, regarding post-traumatic symptomatology, a significant decrease in scores was observed up to the third evaluation (Z (T0-T2) = 3.30 , p =

.005). Scores increased significantly at one year and reached levels similar to those obtained at the second evaluation (Z (T2-T3) = -2.91, p = .01).

Furthermore, in terms of social support, a significant decrease was observed until the third evaluation (Z (T0-T2) = 3.09, p = . 011). The variable showed an even larger decrease in scores from the third to the fourth measurement (Z (T2-T3) = 3. 43, p = .003). In loneliness, it experienced a significant and evident increase in the last evaluation (Z (T0-T3) =-6.8 8, p <. 001). Lastly, for intersectional discrimination, the results reveal a significant increase from the first to the second evaluation (Z (T0-T1) = -14.76, p < . 001), with a subsequent gradual and significant decrease until the last evaluation one year later (Z (T1-T3) = 3. 35, p = . 005). Tables 3 and 4 provide more detailed results, and Figures 1 and 2 depict graphically the evolution of the scores for the different variables.

Discussion

The results of the present study reflect the evolution of the impact of mental health of the COVID-19 pandemic since its arrival in Spain. The research was conducted from the declaration of the health emergency and the confinement of the population, up to one year later with the arrival of the new normality and the appearance of successive waves of the virus.

The sociodemographic characteristics of the sample remained stable throughout the four evaluation periods. The exception was the last evaluation, which showed a higher proportion of people with a family member or close relative who had been infected by the virus. This is a logical consequence of more months of the pandemic.

Also, the results of the models show that, in general, there have been significant changes in the variables of depression and anxiety.

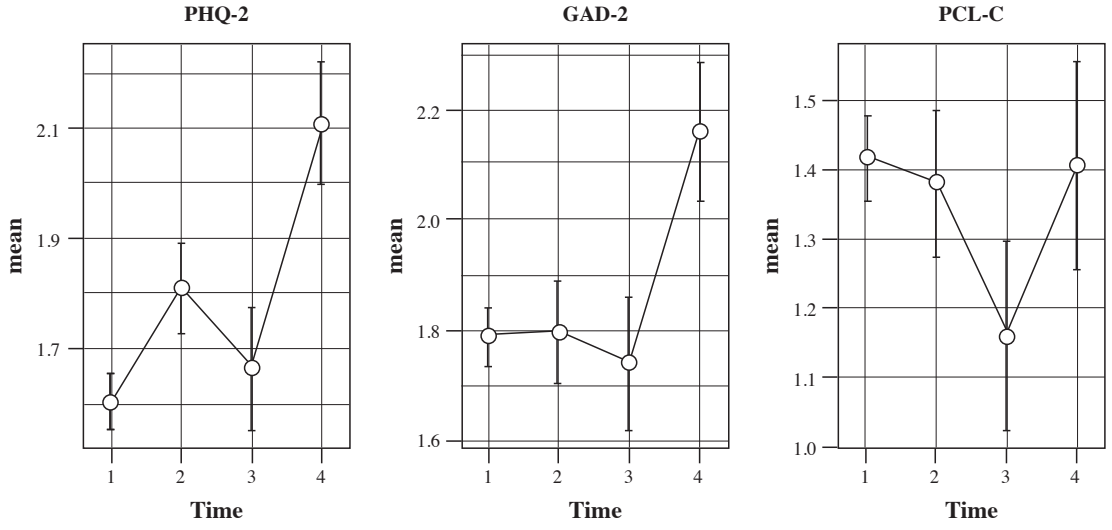

Figure 1. Trends From the Beginning of the Pandemic Until one Year Later for the Depression (PHQ-2), Anxiety (GAD-2), and PTSD (PCL-C-2) Symptoms

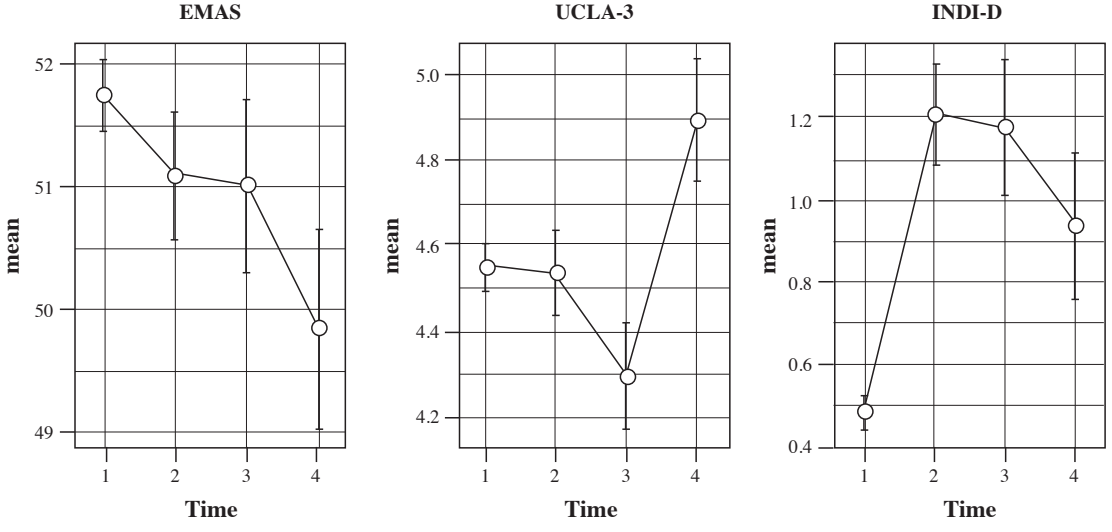

Figure 2. Trends From the Beginning of the Pandemic Until one Year Later for the Social Support (EMAS), Loneliness (UCLA-3), and Intersectional Discrimination (InDI-D)

This study finds a greater presence of these symptoms one year after the arrival of the virus. Similarly, the social support variable shows a significant reduction one year later. In addition, results on intersectional discrimination experienced also reveal significant changes over time, with greater discrimination following the pandemic. However, the temporal models show no significant differences in post-traumatic symptomatology or loneliness.

As for the presence of symptoms of depression and anxiety, the trends are similar. There is an increase in symptomatology during home confinement, being this increase significant for depression. Then, the depression scores drop significantly with the arrival of the new normal. But after that, this symptomatology increases again during the new normal period. This seems to reflect the complex situation we have experienced after the arrival of the new normal, that far from being an improvement, has brought with it new restrictions. Together with the successive waves of the virus, this has implied the experience of the loss of people or family members and other stressful life events such as having to cope with the disease and adapt to new work routines. The observed symptomatology seems to be consistent with patterns of adaptive stress and mood changes. In addition, the results found in symptomatology trends by other longitudinal studies, such as the one from the United Kingdom (Fancourt et al., 2021), are similar. They also find a decrease after the end of the first confinement and an increase thereafter. Likewise, another one-year longitudinal study also points to increased stress after the disease has been suffered (Daly & Robinson, 2021). However, regarding post-traumatic stress, no significant changes were detected either during the initial confinement or after one year. Nevertheless, the trend shows an non-significant increase in symptomatology with the arrival of the new normal. This is comparable to the levels found during confinement.

It is also worth noting the marked downward trend in perceived social support. This trend began to fall after the start of the confinement and then continued to fall even further with the arrival of the new normal. In contrast, perceived loneliness follows a pattern more similar to depressive symptomatology. It slightly decrease with the new normal and an increase can be seen at the last assessment , although the models do not show a significant change . Perhaps the loss of social support and the non-significant increase in loneliness might be because, after an initial feeling of unity to face the pandemic, the new normal has implied isolation measures and avoidance of social contact. Additionally, at least in Spain, these measures have sometimes been different in each territory and confusing in their application, therefore fostering a greater feeling of lack of support. To our knowledge, no long-term longitudinal studies have been published on the perceived social support of the population one year after the onset of the pandemic. However, there is evidence of a positive relationship between lack of social support and different psychological symptomatology during confinement (Li et al., 2021). We are also lacking knowledge of longitudinal studies on feelings of loneliness one year after the onset of the pandemic. A longitudinal study regarding feelings of loneliness across four evaluation moments during confinement in the Spanish context finds a significant linear increase in loneliness in the general population (Losada-Baltar et al., 2021).

Regarding intersectional discrimination, it is possible to observe that during confinement the levels of discrimination increased significantly. They decreased after the arrival of the new normal, but never returned to the previous levels. Intersectional discrimination considers different conditions that may affect stigmatization, and COVID-19 may be an incentive for previously vulnerable groups such as people with mental health problems, racial minorities, or even other circumstances such as being women to be more discriminated against (Sáiz et al., 2020).

In general, the trends found in the evolution of the scores in the different variables are consistent with each other. They show that, although with the end of the confinement there seems to be a recovery of the impact suffered, the reality is that one year later the values are far from reflecting normality and a total overcoming of the pandemic in terms of mental health. One potential explanation is that the "new normal" is still far removed from reality before the pandemic. Although people can go out, work, and socialize, they have done so with caution, restraint, distance, and fear of contagion. Working from home and distance learning has become part of people's lives in the last year. This has led to a drastic decrease in social contact, which may lead to an increase in perceived loneliness, as social support is one of the main predictors of loneliness. Social gatherings in homes have been banned for months except for cohabiting couples and those caring for vulnerable people. In Spain, such gatherings are a source of social support and gratification, especially in the extended family. People have ceased to hug and kiss each other when greeting one another. Even when able to leave the house, many people have preferred to maintain a physical social distance until they receive the vaccine, as the data on virus incidence and deaths have continued to rise over the twelve months since the end of confinement. Furthermore, in addition to social support, depressive symptomatology is an important predictor of loneliness and is known to have been increasing in the last year.

The present study has several limitations: the main limitation is the loss of participants during successive evaluations. Due to this large loss of participants, it was decided to carry out the statistical analysis of longitudinal linear mixed models with each participant of the study. It should also be noted that the sample is not representative of the Spanish population, as the loss of participants and the type of sampling may reflect the fatigue of the population with respect to COVID-19, which may have led to a certain bias in the evaluations, so the results should be interpreted with caution.

Another limitation concerns the instruments used and the online evaluation, as well as the type of sampling. Furthermore, regarding symptomatology, it should be taken into account that although the screening instruments suggest cut-off points of the possible case-no case, the results should be understood as illustrative as they refer to the presence of symptomatology and not to diagnoses, pending a more complete evaluation.

The present study is the first to date to publish trends in different variables that reveal the psychological impact of the COVID-19 pandemic from its onset until one year later in the Spanish population. The results show a clear impact of the pandemic on mental health, with increased symptoms of depression and anxiety. There is also a perception of loss of social support, and both this variable and perceived discrimination have increased over the past year. The situation has improved over time. The arrival of the new normal, and the introduction of vaccines are giving us a glimpse of the end of the pandemic. But we must take into account the fatigue and consequences that this has provoked and is still provoking on mental health. The above highlights that a strengthened network of mental health resources is of paramount importance in addressing mental health in the post-pandemic period. This network must

optimize detection and preventative interventions from primary care. Specialized treatments (psychiatric, psychological, etc.) must also be promoted from the mental health network, adjusting these treatments to the special needs of COVID -19 patients.

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