

Psychophysical Impact of the COVID-19 Pandemic on HealthCare Workers in Argentina. The ImPPaCTS-SAC.20 Survey

Impacto psicofísico de la pandemia COVID-19 en trabajadores de la salud en Argentina. Encuesta ImPPaCTS-SAC.20

CRISTHIAN E. SCATULARO¹, LUCIANO BATTIONI¹, SEBASTIÁN BELLIA², SARA COSTA DE ROBERT², MARÍA DE LAS NIEVES GATTI², MARIO RACKI², GUILLERMINA SORACIO¹, ADRIÁN LESCANO¹, JULIO GIORGINI², STELLA M PEREIRO¹.

ABSTRACT

Background: The Coronavirus-2 (SARS-CoV-2) pandemic has generated negative psychological effects in the whole population. Our objective was to describe this impact on health care workers of Argentina.

Methods: This was a cross-sectional, multicenter study evaluating anxiety, depression, burnout, and alterations in lifestyle and interpersonal relationships by means of an anonymous survey carried out from June to September 2020.

Results: A total of 1221 healthcare workers, with median age 42 years (IQR 34.5-52) and 65% women were surveyed for the study. Among them, 77.2% lived in the Autonomous City of Buenos Aires and the Buenos Aires province; 66.7% were specialist physicians or nurses, 41.1% were clinical specialists, 29.8% intensive care or coronary care unit physicians and 10.2% kinesiologists or nurses. In 51.8% of cases, healthcare workers reported that all biosafety recommendations were not met in their workplaces. Anxiety was detected in 40.5% of cases, major depression in 22.1% (4.5% referred frequent suicidal ideation), minor depression in 10.9% and burnout in 38.7%. Smoking increased in 9.4% of healthcare workers and alcohol consumption in 22%; 62.1% declared worse sleep quality, 50.2% reduced physical activity, 18.4% worsened their affective relationship and 40.4% suffered discrimination for being health workers.

Conclusion: The Coronavirus pandemic has produced an increase in depression, anxiety, burnout and unhealthy lifestyle habits in healthcare workers surveyed in Argentina.

Key-words: Coronavirus; Argentina - Health personnel - Psychiatric disorders

RESUMEN

Introducción: La pandemia por el Coronavirus-2 (SARS-CoV-2) generó efectos psicológicos negativos en toda la población. Nuestro objetivo es describir ese impacto en los trabajadores de la salud de la República Argentina.

Material y métodos: Estudio de corte transversal, multicéntrico, desde junio a septiembre de 2020, que evaluó ansiedad, depresión, *burnout*, alteraciones de los estilos de vida y las relaciones personales mediante una encuesta anónima.

Resultados: Se encuestó a 1221 trabajadores de la salud, con una mediana de edad de 42 años (RIQ 34,5-52), 65,9% eran mujeres. El 77,2% residía en la Ciudad Autónoma de Buenos Aires y en la provincia de Buenos Aires. El 66,7% eran médicos o enfermeros especialistas, el 41,1%, de especialidades clínicas, 29,8% médicos de unidades de cuidados intensivos o unidades coronarias y 10,2% kinesiólogos o enfermeros. El 51,8% manifestó que en su trabajo no se cumplían todas las recomendaciones de bioseguridad. Se detectó el 40,5% de ansiedad, 22,1% de depresión mayor (4,5% refirió ideación suicida frecuente), 10,9% depresión menor y 38,7% *burnout*. El 9,4% aumentó el consumo tabáquico y el 22% el de alcohol; el 62,1% empeoró su calidad de sueño, el 50,2% redujo la realización de ejercicio físico, y el 18,4% deterioró su relación afectiva. El 40,4% sufrió discriminación por ser personal de salud.

Conclusión: La pandemia por Coronavirus ha generado un aumento de depresión, ansiedad, *burnout* y hábitos de vida no saludables en los trabajadores de la salud de Argentina encuestados.

Palabras clave: Coronavirus – Argentina - Trabajadores de la salud - Desórdenes psiquiátricos

REV ARGENT CARDIOL 2021;89:196-202. <http://dx.doi.org/10.7775/rac.v89.i3.20231>

Received: 11/14/2020 – Accepted: 01/08/2021

Address for reprints: Julio Giorgini – Hospital Alemán – Av. Pueyrredón 1640 – CABA. e-mail: jgiorgini@hospitalaleman.com

¹ Heart Failure and Pulmonary Hypertension Council – Argentine Society of Cardiology (SAC)

² Psychosocial Aspects in Cardiology Council - Sociedad Argentina de Cardiología (SAC)

INTRODUCTION

At the end of 2019, the first pneumonia cases generated by a new Coronavirus named Coronavirus-2, causing a severe acute respiratory syndrome (SARS-CoV-2), were described in Wuhan. The virus rapidly extended throughout the world, and on March 11, 2020, the World Health Organization (WHO) declared the COVID-19 disease as a global pandemic. (1)

In the Argentine Republic the first positive case forced the health authorities to establish the necessary measures to contain and mitigate the disease, Preventive and Compulsory Social Isolation (PCSI) being one of the actions adopted since March 20, 2020 by presidential decree throughout the national territory. This measure was initially more intense in the Metropolitan Area of Buenos Aires and, later, in the rest of the country (especially in large urban centers) due to the widespread of the disease. (2, 3)

PCSI implied social distancing, home isolation, limited circulation and changes in working and educational activities, with few exceptions for those considered as "essential workers" to sustain the society, including all the healthcare workers of the country. (2, 3) All this conditioned negative psychological effects, as psychosocial stress, anxiety, depression and burnout sensation in all the population, and healthcare workers in Argentina were no exception (4-9)

This study was a collaborative project between the Psychosocial Aspects in Cardiology and the Heart Failure and Pulmonary Hypertension Councils of the Argentine Society of Cardiology (SAC) to describe the psychological and lifestyle impact of the SARS-CoV-2 pandemic on healthcare workers of Argentina.

METHODS

Design

This was a cross-sectional, multicenter study of an anonymous self-administered survey of healthcare workers of Argentina carried out from June to September 2020.

Data collection

Data collected by means of a specially designed self-administered electronic questionnaire, with exclusive access to researchers, were automatically incorporated into a central database (see Annex). Completing the survey, which included questions on demographic data, working and specialty aspects, (10) availability of work biosafety elements, diagnostic scales to detect anxiety, depression, burnout sensation, lifestyles and personal relationships, was considered as implicit personal consent.

Scales for population mental disorder screening

The Generalized Anxiety Disorder 7 (GAD 7) scale for population anxiety screening (11, 12), the patient health questionnaire 9 (PHQ 9) for major and minor depression (13-18) and the Mini-Z score to evaluate burnout sensation (19) were used in the survey (see Annex).

Analytical statistics

A descriptive analysis was made of continuous variables, expressed as mean and standard deviation or median and interquartile range (IQR), according to their distribution.

Variable normality was assessed by means of graphic tools (histograms, normal distribution charts, among others) and the Shapiro-Wilk test. Categorical variables were expressed as numbers and percentages. Diagnostic tools' Cronbach α (GAD 7, PHQ 9 and Mini-Z) was calculated to assess reliability, considered adequate if it was >0.8 . SPSS 24 (IBM) and Python "Pandas", "Wordcloud" and "Matplotlib" software packages were used for analysis.

RESULTS

A total of 1221 healthcare workers were surveyed, with median age of 42 years (IQR 34.5-52), range between 22 and 77 years and 65.9% women. In 77.2% of cases participants lived in the Autonomous City of Buenos Aires (CABA) and in the Buenos Aires province (53.4% and 23.8%, respectively).

Working aspects

Among surveyed healthcare workers, 66.7% were specialist physicians or nurses, and 10.2% were residents. In 41.1% of cases, physicians worked in clinical specialties, 29.8% in intensive care units or coronary care units and 10.2% were kinesiologists or nurses. Surveyed participants worked in the surgical setting in 10.1% of cases and 5.1% as non-medical care staff (health teaching, research and administration). The most frequently surveyed specialties were cardiology (25.2%), nursing (7.3%) and clinical medicine (6.4%). The remaining specialties are detailed in Table 1.

When interrogated about the modality of ambulatory patient care, 28.1% of physicians reported doing face-to-face consultations, 23.8% through telemedicine and 17.1% combining both modalities. Among the physicians surveyed, 30.6% referred variable degrees of anxiety with patient care by digital methods and a similar number of professionals declared that they would not continue with this modality after the pandemic.

A total of 498 healthcare workers (40.8%) worked on salaried jobs, 31.9% were autonomous workers and 25.7% had both types of income.

Regarding occupational biosafety, 51.8% of healthcare workers stated that their work places did not meet all WHO recommendations on the availability of personal protection equipment (PPE) and only 340 workers (27.8%) referred feeling completely safe with the PPE provided.

Anxiety, depression and burnout population screening

According to the population screening scales described, the following anxiety, depression and burnout prevalence were detected in the population surveyed (Figure 1):

- Anxiety: 40.5% of the sample (494 surveyed healthcare workers) presented symptoms of anxiety measured with the GAD 7 questionnaire (Cronbach α 0.91).
- Depression: According to PHQ 9 (Cronbach α 0.90), major depression was detected in 270 cases (22.1%) and minor depression in 134 cases (10.9%)

Table 1. Specialties of the healthcare staff surveyed. (According to the list of specialties provided by the Argentine Medical Association, taken from reference #10).

Specialties (According to the specialties' index of the National Ministry of Health)	Individual frequency	Accumulated frequency
Child surgery (Pediatric surgery), Pediatric endocrinologist, Pediatric gastroenterologist, Pediatric intensivist, Child and adolescent psychiatrist, Pediatric infectologist, Pediatric cardiologist, Pediatric oncologist, Pediatric nephrologist, Legal medicine, Nuclear medicine, Allergy and Immunology, Head and neck surgery, Thorax surgery (Thoracic surgery), Peripheral vascular surgery, Coloproctology, Clinical pharmacology, Physiatry (physical and rehabilitation medicine), Geriatrics, Neurosurgery, Radiotherapy or Radiation therapy, Toxicology, Urology, Pathological anatomy, Hemotherapy and immunohematology, Infectology, Work medicine, Rheumatology, Hematology, Nephrology, Neurology, Biochemistry, Plastic and repair surgery, Otorhinolaryngology, General angiology and Hemodynamics, Cardiovascular surgery, Ophthalmology	< 1%	11.9%
Oncology, Pulmonology, Orthopedics and traumatology, Psychiatry, Endocrinology, Gastroenterology, Cardiological practice technician, Dermatology, Nutrition, Anesthesiology, Intensive care, General surgery, General and/or family medicine, Neonatology	1 – 2.5%	32.9%
Kinesiology, Odontology, Imaging diagnosis, Psychology, General Pediatrics, Gynecology and obstetrics	2.6 – 5%	61%
Clinical medicine, Nursing	5.1 – 10%	74.7%
Cardiology	>10%	100%

of the healthcare staff surveyed. We found that 55 workers (4.5%) reported suicidal ideation more than half of the weekdays or every day.

- Burnout sensation: The Mini-Z questionnaire (Cronbach α 0.728) revealed 38.7% burnout prevalence.

Habits and lifestyle

Active smoking was detected in 13.4% of healthcare workers prior to PCSI, but 9.4% increased consumption after its onset, while 1.2% initiated the habit. Alcohol consumption increased in 22% of the staff surveyed. Worse quality and quantity of sleep was declared by 738 (62.1%) of healthcare workers and 50.2% had to interrupt or decrease the physical activity they usually performed (Figure 2)

Strategies to face stress

Physical exercise was the strategy most frequently adopted to mitigate stress by the healthcare personnel surveyed (24.9%) followed by psychotherapy (16.5%) and meditation (15.2%). However, other non-healthy strategies to control stress were use of anxiolytics (11.3%) or antidepressants (2.9%), initiation or increase of smoking (4.1%) and alcohol consumption (7%).

Interpersonal relationships

In 21.9% of cases, healthcare workers decided to isolate with his/her family. Similarly, 18.4% reported that his affective relationship had worsened with a cohab-

iting member of the family. Moreover, 493 (40.4%) of the staff surveyed suffered some degree of discrimination for being healthcare personnel. The source of discrimination could be identified in 190 persons, and the most frequent were neighbours (61 cases), followed by colleagues (40 cases) and the own family (29 cases).

DISCUSSION

The SARS-CoV-2 pandemic and the health measures adopted by the health authorities for its control, conditioned undeniable negative psychological effects on the whole population of Argentina, due to its unpredictable and uncontrolled character, its initially unknown lethality and the lack of reliable or scientifically supported information concerning this question.

In healthcare workers, we must add the impact of the abrupt change in ambulatory care strategies, the reorganization of hospitalization services, the compulsory learning of PPE use, the discrimination by part of the society for being assumed to transmit disease (40.4% discrimination reported in our cohort), and the sensation of imminent saturation of the health care system as a latent threat.

In this sense, it should be noted that only half of healthcare workers surveyed declared having all PPE and biosafety measures recommended in their workplace, and that even less individuals (27.8%) felt protected by these measures. This means that healthcare workers can perceive fear and uncertainty before the threat of possible contagion, even with the availability of all the occupational biosafety measures.

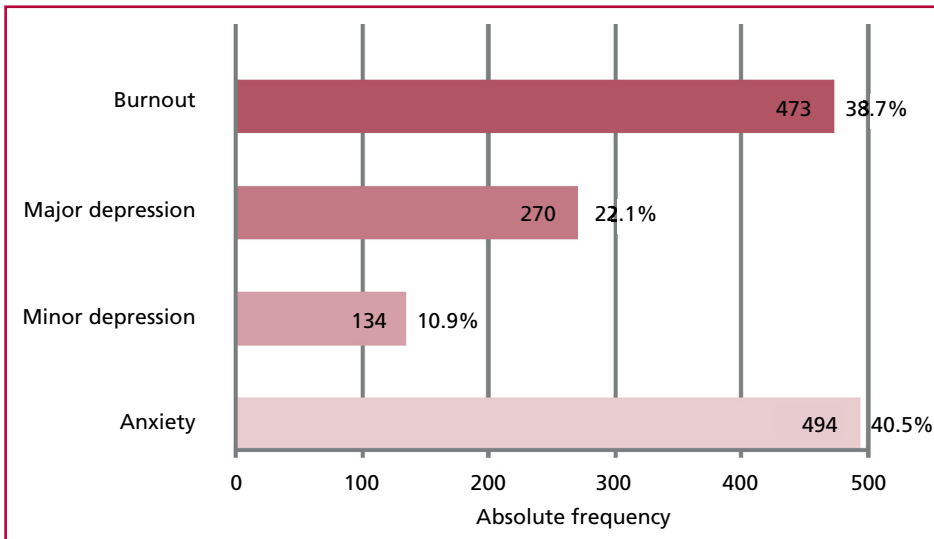


Fig. 1. Anxiety, depression and burnout prevalence detected by population screening in the healthcare staff surveyed.

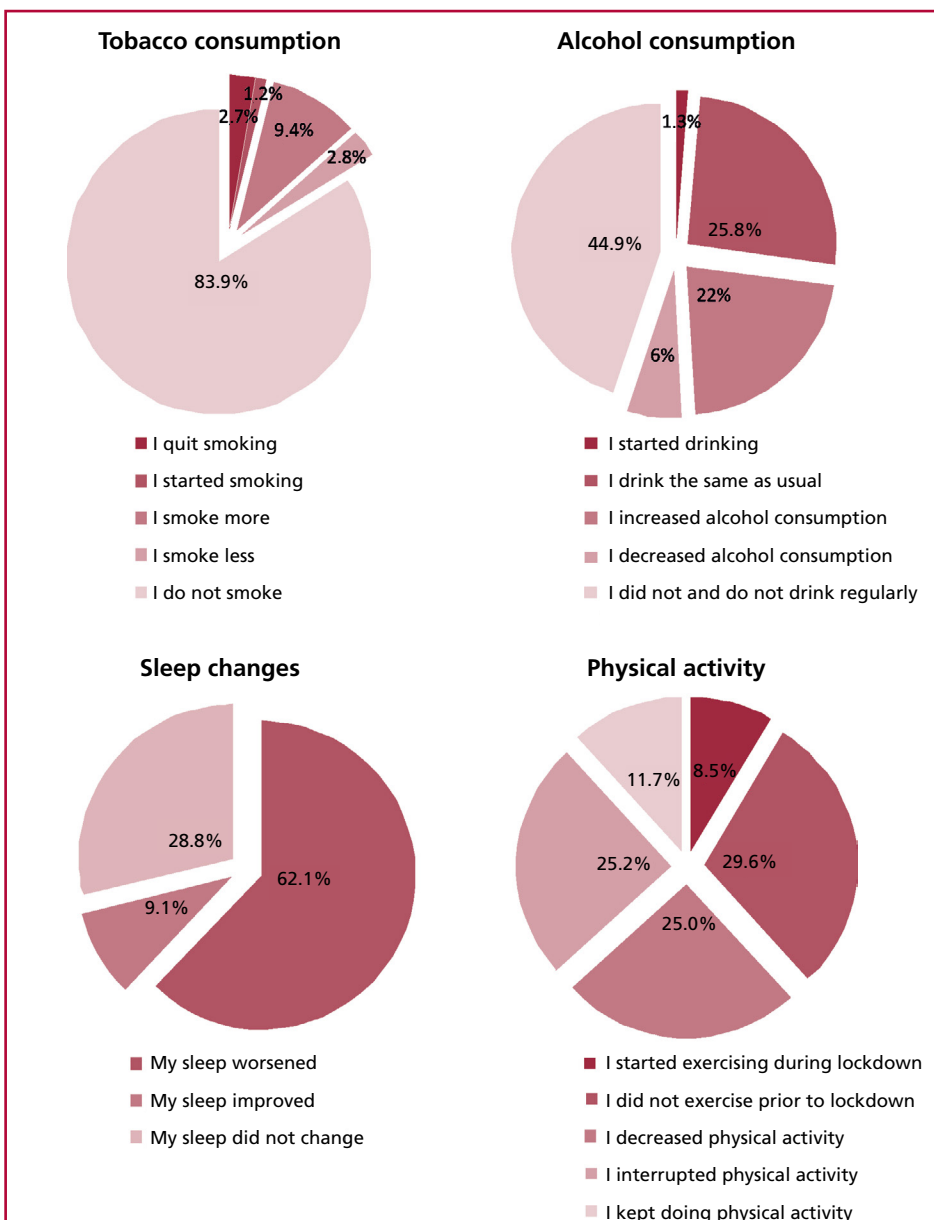


Fig. 2. Prevalence of unhealthy habits and lifestyle during the pandemic in the healthcare staff surveyed

Moreover, the new ambulatory working modalities – as telemedicine- which have been a great resource to keep the continuity of patient care and the work of healthcare professionals, represented a true challenge for those who used them, compared with the traditional face-to-face model, to the point that 30.6% of physicians surveyed referred that telemedicine care generated anxiety and that they would not continue with this practice after the pandemic.

In this sense, Argentine researchers reported in a survey including 1059 persons of the general population carried out during June 2020, symptoms of depression in 82% and anxiety in 76.5% healthcare workers. (20) The “Preliminary report N° 1 Chile – Depressive symptoms and psychological malaise”, showed that among 954 healthcare workers, 31.4% reported moderate or severe depressive symptoms, 7.1% manifested having had suicidal ideation and 54.8% some common mental disorder (anxious, depressive, adaptive), figures two or threefold higher than those found in studies prior to the pandemic in Chile. (21). In the international setting, the UK Household Longitudinal Study showed that the prevalence of psychological distress increased from 19.4% in 2017-2019 to 30.6% in April 2020, and that the groups most severely affected were women, young people, Asian individuals, and persons with lower educational level. (22)

In a meta-analysis including 60 458 healthcare workers assisting patients affected with SARS/MERS/COVID-19, 62.5% reported “general health concerns”, 43.7% fear, 37.9 insomnia, 37.8% psychological malaise, 34.4% burnout, 29% anxiety manifestations, 26.3% depressive symptoms, 20.7% typical phenomena of post-traumatic stress, 16.1% somatization, and 14% feelings of being the object of stigmatization. (23)

These results are comparable to those of our study and evidence high indices of anxiety, depression and burnout symptoms that should alert in terms of mental health: 22.1% major depression and 4.5% suicidal ideation. These results are similar to those presented by the Chilean study and the meta-analysis (21, 23), though clearly superior to those revealed in 2018 by the “Epidemiological study of mental health in the general population of Argentina” (major depression in 8.7%, anxiety disorders in 16.4% and global mood disorders in 12.3%). (24) The constant threat of possible contagion among the healthcare personnel, even with correct use of PPE, the greater load of weekly working hours and holiday proscription for health care personnel since the beginning of PCSI, could undoubtedly justify that 38.7% of the healthcare staff surveyed referred burnout in our survey.

At the same time, the pandemic and PCSI were associated with a high percentage of unhealthy habits and lifestyle, such as smoking, alcohol consumption, sleep disorders, sedentarism, worsening of interpersonal relationships and anxiolytic and antidepressant consumption, above Argentine data reported before the pandemic, when 10.4% presented some type of

substance-related disorder. (24)

There are variable worldwide data regarding smoking and alcohol consumption. In the UK Household Longitudinal Study, smoking decreased (RR=0.9, CI 95% 0.8 to 1.0) contrary to our results, and the proportion of persons that drank alcohol 4 or more times per week increased (RR=1.4, CI 95% 1.3 to 1.5). (22) In another English survey with 3632 participants, data showed that among 2243 who consumed alcohol before the pandemic, 9.4% abandoned the habit, 30.3% drank more and 13.7% less, while 5.8% of non-drinkers started to consume alcohol due to the lockdown ($p<0.001$). Simultaneously, among 15.4% of people who smoked before the pandemic, 1% abandoned smoking, and 7.4% reported increased and 2% decreased tobacco consumption since the onset of the pandemic. (25) In Australia, 20% declared more alcohol consumption (18.1% of women and 15.5% of men) and 27% less consumption. (26)

Regarding sleep quality, the Argentine study of Giardino et al. reported poor sleep quality in 84.7% of people, insomnia in 73.7% and nightmares in 59.8%. (20) The Understanding Society COVID-19 study showed that lack of sleep prevalence and incidence were 24.7% and 20.2%, respectively, greater in women, families with small children, persons with financial difficulties, Black race people and ethnic minorities. (27) Other international studies on sleep in healthcare workers from different parts of the world reported a variable incidence, but elevated insomnia occurrence. (28) In our report, we have found evidence of sleep quality and quantity worsening in 62.1% of healthcare workers surveyed.

In the present study, 52% of respondents referred having decreased or interrupted the physical activity they used to perform regularly. In a Chinese study, 70% of participants reported that their level of physical activity had decreased since the onset of the pandemic, presenting 54.3% vs. 40% sedentarism prior to the pandemic. (29). Conversely, we must also point out that physical exercise was the most frequent strategy to control anxiety, followed by psychotherapy and meditation in the cohort evaluated.

This study presents some limitations. Firstly, it did not reach the total universe of healthcare workers of the country, and, in this sense, we should point out a possible participation bias related to greater interest in those responding to the survey. On the other hand, there was greater participation of cardiology workers, which is expected due to the society originating the study (though there was participation of a great diversity of specialties).

Also, most health workers surveyed lived in CABA and the Buenos Aires province, with lower representation in the rest of the country.

Finally, we must mention that the anxiety, depression, and burnout scales are population screening tools, and can never establish a decisive diagnosis on mental disorders in individual patients. The mini-Z

questionnaire is a validated tool in English, but not in Spanish, to detect burnout with a single question, which, added to the low reliability calculated, should refer the prevalence of burnout reported in this study to an exploratory character.

CONCLUSIONS

The SARS-CoV-2 pandemic and the health measures adopted for its mitigation have entailed a high prevalence of depression, anxiety, burnout, smoking, alcohol consumption and sedentarism in healthcare workers surveyed in Argentina. This psychophysical impact might require group or individual support by mental health professionals.

Acknowledgements

We wish to thank

- Dra. María Beatriz Moyano (President of APSA psychiatric research Chapter, member of the Board of Directors of the Argentine Society of Child Psychiatry, head of the Tourette, OCD, ADHD and Associated Disorders Interdisciplinary Center).
- Dr. Sebastián Leonangeli (UNC Psychopathology Service, Attached Professor at the Psychiatry Chair of the School of Medicine, UNC, Laboratory of Neurophysiology, IMME, INIMEC-CONICET-UNC).

Conflicts of interest

None declared.

(See authors' conflicts of interest forms on the website/ Supplementary material)

REFERENCES

1. Organización Mundial de la Salud (OMS). (Internet). [Consultado octubre de 2020]. Disponible en: <https://www.who.int/es/news-room/detail/27-04-2020-who-timeline---covid-19>
2. Decreto de Necesidad y Urgencia 297/2020. Boletín Oficial de la República Argentina (Internet). [Consultado octubre 2020]. Disponible en: <https://www.boletinoficial.gob.ar/detalleAviso/primera/227042/20200320>
3. Decreto de Necesidad y Urgencia 297/2020. Boletín Oficial de la República Argentina (Internet). [Consultado octubre 2020]. Disponible en <https://www.boletinoficial.gob.ar/detalleAviso/primera/235132/202009204>.
4. Wang C, Pan R, Wan X, Tan Y, Xu L, Ho CS, et al. Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *Int J Environ Res Public Health* 2020;17:17-29. <https://doi.org/10.3390/ijerph17051729>
5. Sandín B, Valiente RM, García-Escalera J, Chorot P. Impacto psicológico de la pandemia de COVID-19: Efectos negativos y positivos en la población española asociados al periodo de confinamiento nacional. *Revista de Psicopatología y Psicología Clínica*, 2020;25:1. <https://doi.org/10.5944/rppc.27569>
6. Brooks SK, Webster RK, Smith LE, Woodland L, Wessely S, Greenberg N, et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet* 2020;395:912-20. [https://doi.org/10.1016/S0140-6736\(20\)30460-8](https://doi.org/10.1016/S0140-6736(20)30460-8)
7. Santini ZI, Koyanagi A, Tyrovolas S, Mason C, Haro JM. The association between social relationship and depression: a systematic review. *J Affect Disord* 2015;175:53-65. <https://doi.org/10.1016/j.jad.2014.12.049>
8. Stagnaro JC, Cía AH, Aguilar Gaxiola S, Vázquez N, Sustas S, Benjet C, et al. Twelve-month prevalence rates of mental disorders and service use in the Argentinean Study of Mental Health Epidemiology. *Soc Psychiatry Psychiatr Epidemiol* 2018;53:121-9. <https://doi.org/10.1007/s00127-017-1475-9>
9. Rotenstein LS, Torre M, Ramos MA, Rosales RC, Guille C, Sen S, et al. Prevalence of Burnout Among Physicians. *JAMA* 2018;320:1131-50. <https://doi.org/10.1001/jama.2018.12777>
10. Nómina de especialidades médicas de la Asociación Médica Argentina (AMA). (Internet). [Último acceso: marzo ,2020]. Disponible en: https://www.ama-med.org.ar/page/Recertificacion-Nómina_de_Especialidades
11. Spitzer RL, Kroenke K, Williams JBW, Löwe B. A Brief Measure for Assessing Generalized Anxiety Disorder. *Arch Intern Med* 2006;166:1092-7. <https://doi.org/10.1001/archinte.166.10.1092>
12. García-Campayo J, Zamorano E, Ruiz MA, Pardo A, Pérez-Paramo M, López-Gómez V, et al. Cultural adaptation into Spanish of the generalized anxiety disorder-7 (GAD-7) scale as a screening tool. *Health and Quality of Life Outcomes* 2010;8:8. <https://doi.org/10.1186/1477-7525-8-8>
13. Spitzer R, Kroenke K, Williams J. Validation and utility of self-report version of PRIME-ME: The PHQ primary care study. *J Am Med Assoc*, 1999;282:1737-44. <https://doi.org/10.1001/jama.282.18.1737>
14. Kroenke K, Spitzer R, Williams J. The PHQ-9 Validity of a Brief Depression Severity Measure. *J Gen Intern Med* 2001;16:606-13. <https://doi.org/10.1046/j.1525-1497.2001.016009606.x>
15. Löwe B, Spitzer R, Gräfe K, Kroenke K, Quenter A, Zipfel S, et al. Comparative validity of three screening questionnaires for DSM-IV depressive disorders and physicians diagnoses. *J Affect Disord* 2004;78:131-40. [https://doi.org/10.1016/S0165-0327\(02\)00237-9](https://doi.org/10.1016/S0165-0327(02)00237-9)
16. Martin A, Rief W, Klaiberg A, Braehler E. Validity of the Brief Patient Health Questionnaire Mood Scale (PHQ-9) in the general population. *Gen Hosp Psychiatry* 2006;28:71-7. <https://doi.org/10.1016/j.genhosppsy.2005.07.003>
17. Backenstrass M, Frank A, Joest K, Hingmann S, Mundt Ch, Kronmüller K-T. A comparative study of non specific depressive symptoms and minor depression regarding functional impairment and associated characteristics in primary care. *Compr Psychiatry* 2006;47:35-41. <https://doi.org/10.1016/j.comppsy.2005.04.007>
18. Diez-Quevedo C, Rangil T, Sánchez-Planell L, Kroenke K, Spitzer R. Validation and Utility of the Patient Health Questionnaire in Diagnosing Mental Disorders in 1003 General Hospital Spanish Inpatients. *Psychosom Med* 2001;63:679-86. <https://doi.org/10.1097/00006842-200107000-00021>
19. Rohland BM, Kruse GR, Rohrer JE. Validation of a single-item measure of burnout against the Maslach Burnout Inventory among physicians. *Stress Health*. 2004;20:75-9. <https://doi.org/10.1002/smi.1002>
20. Giardino DL, Huck-Iriart C, Riddick M. The endless quarantine: the impact of the COVID-19 outbreak on healthcare workers after three months of mandatory social isolation in Argentina. *Sleep Med* 2020;76:16-25. <https://doi.org/10.1016/j.sleep.2020.09.022>
21. Figueroa, R. El impacto psicológico de la pandemia de COVID-19 en el personal de salud: Un panorama preocupante: The psychological impact of the COVID-19 pandemic in the health care staff: A worrisome landscape. *ARS MEDICA Revista De Ciencias Médicas* 2020;45:3-5. <https://doi.org/10.11565/arsmed.v45i3.1741>
22. Niedzwiedz CL, Green MJ, Benzval M, Campbell D, Craig P, Demou E, et al. Mental health and health behaviours before and during the initial phase of the COVID-19 lockdown: longitudinal analyses of the UK Household Longitudinal Study. *J Epidemiol Community Health* 2020;75:224-31. <https://doi.org/10.1101/2020.06.21.20136820>
23. Salazar de Pablo G, Vaquerizo-Serrano J, Catalan A, Arango C, Moreno C, Ferre F, et al. Impact of coronavirus syndromes on physical and mental health of health care workers: Systematic review and meta-analysis. *J Affect Disord* 2020;275:48-57. <https://doi.org/10.1016/j.jad.2020.06.022>
24. Stagnaro JC, Cía A, Vázquez N. Estudio epidemiológico de salud mental en población general de la República Argentina. *Rev Arg de Psiquiat* 2018;29:275-99
25. Vanderbruggen N, Matthys F, Van Laere S, Zeeuws D, Santermans L, Van den Amele S, et al. Self-Reported Alcohol, Tobacco, and Cannabis Use during COVID-19 Lockdown Measures: Results from a Web-Based Survey. *Eur Addict Res* 2020;26:309-1. <https://doi.org/10.1159/000510822>
26. Australian Institute of Health and Welfare 2020. Alcohol, tobacco & other drugs in Australia. Cat. no. PHE 221. Canberra: AIHW. Disponible en: <https://www.aihw.gov.au/reports/alcohol/alcohol-tobacco-other-drugs-australia>. [Revisado el 2 de noviembre de 2020]

27. Falkingham J, Evandrou M, Qin M, Vlachantoniet A. Sleepless in Lockdown: unpacking differences in sleep loss during the coronavirus pandemic in the UK. medRxiv 2020.07.19.20157255. <https://doi.org/10.1101/2020.07.19.20157255>
28. Zhang C, Yang L, Liu S, Ma S, Wang Y, Cai Z, et al. Survey of insomnia and related social psychological factors among medical staff involved in the 2019 novel coronavirus disease outbreak. *Front Psychiatr* 2020;11:306. <https://doi.org/10.3389/fpsy.2020.00306>
29. Zheng C, Huang WY, Sheridan S, Sit CP, Chen XK, Wong SS. COVID-19 Pandemic Brings a Sedentary Lifestyle in Young Adults: A Cross-Sectional and Longitudinal Study. *Int. J. Environ. Res. Public Health* 2020;17:6035. <https://doi.org/10.3390/ijerph17176035>

ANNEX

1. **Survey.** The self-administered electronic survey was performed using the massively distributed Google Form available in the link:
https://docs.google.com/forms/d/1DZIWnzv80TdSz49EZGnx2Ree83TEUT4rft_mcUJRC5A.
2. **Diagnostic scales.** Diagnosis of anxiety, depression, and burnout sensation
 - *Anxiety*
 - The GAD 7 score has been developed for generalized anxiety disorder screening. It consists of 7 items with answers ranging from 0 to 3 points, including symptoms and disability associated with the disorder. A total score ranging from 0 to 21 is obtained adding each item score. There are no cutoff points established for the Spanish version, but in the original version the authors propose a cutoff point ≥ 10 . The Spanish version has a Cronbach $\alpha=0.93$, with 86.8% sensitivity and 93.4% specificity for that cutoff point. (10, 11)
 - *Depression*
 - The PHQ 9 tool establishes the presumptive diagnosis of major depression if there are at least 5 items scored at least as “more than half of the days” or “almost every day”, and at least one of the positive items corresponds to questions 1 or 2. Conversely, minor depression is considered if there are at least 2 to 4 items scored at least as “more than half of the days” or “almost every day”, and at least one of the positive items corresponds to questions 1 or 2. (12, 17)
 - *Burnout sensation*
 - The mini-Z score evaluates aspects of the working environment, encompassing from the relationship with the teamwork, the sensation of chaos or the ability of self-control. The third question detects the subjective burnout sensation (feeling “burnt” or mentally exhausted) and is based in the own subjective interpretation of mental exhaustion. (18)