



ORIGINALES

Psychological effects of the covid19 pandemic on healthcare professionals

Efectos psicológicos de la pandemia covid 19 en el personal del ámbito sanitario

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<https://doi.org/10.6018/eglobal.427161>

Received: 8/05/2020

Accepted: 21/12/2020

ABSTRACT:

Objective: To analyze the psychological effects that the current coronavirus pandemic (covid19) is having on healthcare professionals.

Methods: Descriptive cross-sectional study in a sample of 1,150 healthcare professionals, randomly selected. Measurements and results were explained with the theoretical model of the Semantic Differential proposed by Osgood.

Results: It has been found that, in general, healthcare professionals feel very unprotected, afraid and stressed. They were more afraid of self-contagion than of others. They perceived their work as effective, beneficial, active, useful and flexible, and at the same time, they feel kind, affective, sincere, warm and discreet. We found that nurses, and later, nurse care technicians feel more useful, brave, important, and sincere than other healthcare categories, including physicians. The emotions that the health personnel felt were strongly influenced by their political orientation.

Conclusion: The study carried out on the psychological effect of the current pandemic on health professionals provides significant differences depending on the profession, the employment contract, the sex and the political orientation of the interviewees.

Key words: Sanitary Profiles, pandemic, coronavirus, Covid-19, psychological skills, emotions, semantic differential, nurses

RESUMEN:

Objetivo: Analizar los efectos psicológicos que la actual pandemia de coronavirus (covid19) está teniendo en los profesionales del ámbito sanitario.

Métodos: Estudio descriptivo de corte transversal en una muestra de 1150 profesionales del ámbito sanitario, seleccionados al azar. Las mediciones y los resultados se explicaron con el modelo teórico el Diferencial Semántico propuesto por Osgood.

Resultados: Se ha encontrado que, en general, el personal del ámbito sanitario se siente muy desprotegido, con miedo y estresado. Confieren más miedo al autocontagio que al contagio de otros. Perciben su trabajo como eficaz, beneficioso, activo, útil y flexible, y simultáneamente se siente amable, afectivo, sincero, cálido y discreto. Encontramos que las enfermeras, y después los técnicos

en cuidados enfermeros se sienten más útiles, valientes, importantes y sinceras que otras categorías sanitarias, entre las que figuran los y las médicos/as. Las emociones que sentían el personal sanitario están fuertemente influidas por la orientación política que tuvieran.

Conclusión: El estudio realizado sobre el efecto psicológico de la actual pandemia en los profesionales del ámbito sanitario aporta diferencias significativas en función de la profesión, el contrato laboral, el sexo y la orientación política de los entrevistados.

Palabras claves: Perfiles sanitarios, pandemia, coronavirus, Covid-19, habilidades psicológicas, emociones, diferencial semántico, enfermeras.

INTRODUCTION

On January 7, 2020, the Chinese authorities identified a new type of virus from the Coronaviridae family as the causative agent of the outbreak, which has been called SARS-CoV-2⁽¹⁾. The International Health Regulations Emergency Committee declared the current outbreak of new coronavirus as a Public Health Emergency of International Importance (ESPII) at its meeting of January 30, 2020⁽²⁾ and the WHO named this new disease COVID-19 (for its acronym in English, CoronaVirus Infectious Disease - 19; in Spanish, Enfermedad Infecciosa por Coronavirus -19).

On March 11, the WHO declared: "We have reached the conclusion that COVID-19 can be considered a pandemic"⁽³⁾. Subsequently, on March 14, Royal Decree 463/2020 was published declaring a state of alarm for the management of the health crisis caused by COVID-19 in Spain⁽⁴⁾.

Since the cases began to arrive, Spanish health personnel (HP) have been working to alleviate this pandemic. The conditions in which they do so have deteriorated over the days, as described by the media due to the lack of personal protective equipment (PPE)⁽⁵⁻⁷⁾, the distribution of defective masks⁽⁸⁾ and healthcare pressure⁽⁹⁾.

All of these circumstances have greatly increased the stress that HP is working with. The report of the Committee of the International Labor Organization and the World Health Organization on Occupational Medicine⁽¹⁰⁾, already collected in 1984 that the psychosocial risk factors that generate stress in this area are derived from two routes. On the one hand, the interactions between work, their environment, job satisfaction and the conditions of their organization; and on the other, the capacities and resources of the worker, their needs, their culture, and their personal situation outside of work. In this way, the important influence of all these aspects on the health, performance and satisfaction of our healthcare personnel was recognized, through their own perceptions and experiences^(10,11).

The psychosocial work factors are "positive or negative working conditions and are present in all service institutions. Now, when the organizational and psychosocial factors are dysfunctional, they can provoke a maladaptive response, tension or psychophysiological stress responses, being then considered as psychosocial risk factors".⁽¹²⁾

Recent studies on the occupational risks of health professionals in a situation of epidemiological alert⁽¹³⁾ conclude that an important load of stress is generated by the fear of getting sick and infecting their families as well as by the high workload, for which they recommend giving support psychological treatment to health personnel⁽¹³⁾.

However, these studies do not collect the self-perception and emotions that our health professionals are experiencing because of their professional experiences.

There are many epidemiological studies⁽¹⁴⁻¹⁶⁾ on the evaluation, treatment and diagnosis of the disease, but none that investigate the psychological effects in this population. Given the inherent polarity in work psychosocial factors (positive or negative working conditions), an approach has been made to the adjectives used to report their feelings and their self-perception, based on the theory of meanings⁽¹⁷⁾. This is directly related to the psychological evaluation scale and the Semantic Differential proposed by Osgood, Suci and Tannenbaum, in 1957⁽¹⁸⁾ and recently replicated by Barredo⁽¹⁹⁾. This scale makes it possible to measure the reaction of people exposed to words and concepts using bipolar scales, defined with antonym adjectives at their ends. This is one of the most used methods in social research due to its effectiveness⁽²⁰⁾.

The previous hypotheses are related to the fact that health professionals feel more victims than heroes and that they are suffering social marginalization due to fear of contagion. Regarding gender differences, it is expected that current gender stereotypes mediate the perception that women and men have about themselves^(21,22). The objective of this study is to evaluate the psychological effects that the current COVID-19 pandemic is having on HP's self-perception and emotions between April 14th and 20th.

METHOD

Descriptive study of transverse cut. The sample consisted of 1153 participants. Inclusion criteria: Spanish health personnel (HP). Exclusion criteria: The categories of cleaner, funeral parlor and telemarketer were excluded because they did not have a sufficient sample and, therefore, did not provide significant data. A net sampling procedure (snowball) was used.

The participants were informed about the voluntariness and anonymity of the test. The final sample consisted of 1,150 people, of which 206 were men (17.9%) and 947 women (82.1%). The mean age was 2.81 years, with a range that oscillated between 18 and 64 years (SD = 1.21).

Regarding marital status, 51.1% were married, 29.4% were single, 10.4% were divorced; 6.8% domestic partners; 1.1% lived with a partner; 0.9% were widowers and 0.3% declared that they were dating.

According to the number of children, the results of the frequency analysis showed that 37.1% had no children, 35.9% had 2 children, 15.3% had only one child, 10.5% had three and only 1.2% had more than three children.

The most frequent professions to which the participants belonged were, ordered from highest to lowest percentage: Nursing Professionals (50.2%), Auxiliary Nursing Care Technician (NCT) (18.5%), Medicine (17.8%), Technicians (encompassing with this term radiology, pharmacy, pathological anatomy and laboratory technicians) (3.7%), Midwives (2.8%), Physiotherapists (Physio) (2.7%), Guards and Drivers (1.2%), Administrative (Adm) (1%), Occupational Therapists (Oc. Th) (0.9%), Pharmacy

(0.5%), Clinical Psychologists (Psychol) (0.4%), Odontologists and Stomatologists (Odont) (0.3%). Depending on the type of contract, they were permanent (42.2%), temporary (28.6%), temporary (26%), resident (2%), self-employed (0.7%), unemployed (0.3%) and retired (0.2%) personnel. 81.4% of the participants worked regularly with covid-19 patients.

The self-administered electronic modality of the survey was used through the google questionnaire application, based on recent studies⁽²³⁾ in which it has been verified that this technique is an optimal tool for the collection of information in those environments in which the study population analyzed enjoys the technical, infrastructural, educational and cognitive requirements necessary to obtain results that can be extrapolated. In the case of healthcare professionals, most of their members have easy access to virtual environments.

The survey consists of 40 items of which 9 refer to sociodemographic data and 31 to emotions and self-perceptions of HP using a bipolar adjective scale.

The instructions given to fill in the questionnaire were: "The objective of this questionnaire is to deep into the psychological effects that the covid-19 crisis produces in the health professional (Nurse, doctor, NCT or assistants, technicians, MIR, EIR, midwife, physiotherapists, clinical psychologist ...). It consists of 40 questions. The treatment of the data will be confidential and anonymous, and its purpose will be to carry out scientific studies".

The instruments that were used were:

- Socio-demographic questionnaire: with this questionnaire, information was collected from the participants regarding their age, sex, political orientation (left, right, center, other), number of children, profession (previously named categories), number of people with those who live in your home, type of contract (previously named categories); and if you worked in a unit that treats patients confirmed or suspected of having covid19 (Yes / No).

-Bipolar adjective scale: When asked: "As Healthcare Personnel I currently feel ...", 31 groups of bipolar adjectives are provided (valued with a 7-point Likert-type scale, from "little" to "a lot"). Regarding the process of construction of the adjective scale, in the first place, it was started from the scale elaborated by Castillo-Mayén and Montes-Berges⁽²⁴⁾ that consists of 242 adjectives and was completed with bipolar adjectives in the three factors of the Structure Evaluation-Power-Activity (EPA) of the scale or method of the Osgood semantic differential ⁽²⁵⁾. The adjectives of evaluation are those that describe the attitude of the evaluated person towards the concepts, while those of Power describe the strength that the concept has for the evaluated and those of Activity refer to the agility inherent in it.

-The questionnaire ends with two questions that were considered necessary given the current pandemic situation: "My greatest fear is (to infect myself - to infect others)"; "I have perceived some type of social rejection, withdrawal or fear of contagion due to my condition as health personnel (never-many times)". Both were assessed with a 7-point Likert scale (from 1 that means little to 7 that means a lot).

The scale, applied individually, was disseminated through social networks (Facebook, Instagram, WhatsApp and email) between April 14th and 20th, 2020.

RESULTS

Descriptive analyzes about the self-perception of health personnel, in general, showed that they felt sincere, kind, concerned, honest, active, pleasant, useful, flexible, affectionate, beneficial, good, warm, discreet, although stressed, afraid, and unprotected (see table 1).

Table 1. Description of adjectives self-assigned to HP.

Adjectives	Mean (M)	Standard Deviation (SD)
Dissatisfied - Satisfied	3,89	2,00
Dishonest - Honest	5,61	1,68
Victim - Hero	3,26	1,46
With Fear - Safe	2,91	1,70
Sloppy - Beware	3,48	2,10
Unprotected - Protected	2,79	1,67
Bad - Good	5,15	1,57
Weak - Strong	4,71	1,69
Passive - Active	5,67	1,43
Cruel - Kind	6,09	1,14
Sad - Happy	4,48	1,81
Surly - Affectionate	5,35	1,58
Punished - Awarded	3,36	1,49
Unpleasant - Nice	5,49	1,46
Cold - Warm	5,25	1,51
Useless - Useful	5,68	1,56
Rigid - Flexible	5,41	1,46
Gossip - Discreet	5,79	1,27
Distant - Affective	5,42	1,57
Nervous - Calm	3,81	1,83
Coward - Brave	5,18	1,47
Liar - Sincere	6,11	1,10
Carefree - Worried	6,04	1,26
Serious - Fun	4,32	1,73
Stressed - Relaxed	2,98	1,62
Lost Time - Time Well Spent	4,79	1,63
Trivial - Important	4,96	1,51
Harmful - Beneficial	5,39	1,46
Confusingly - Clear Mind	4,64	1,73
Spread Me - Infect Others	2,41	1,79
Social Rejection	2,68	1,89
Valid N (according to list)		

Next, ANOVAs were performed to find out if there were differences in the self-assignment of these adjectives depending on gender, profession, type of contract, political orientation, whether or not they worked with patients with COVID-19, number of people they lived with in house and the day they answered.

In relation to sex, it was found that there were significant differences in the dimensions with fear / safe, neglected / caring, unprotected / protected, weak / strong, sad / happy, nervous / calm, carefree / worried, stressed / relaxed, confused mind / clear mind, infecting myself / infecting others and in the scores on feeling greater social rejection, so that men scored in all positive dimensions than women, except in worried and fear of infecting others, in which women exhibited greater scores (table 2).

Table 2. ANOVA, means and standard deviations of the self-assignment of adjectives according to gender

Adjective Dimensions	Frequency (F)	Significance (p)	Men		Women	
			M	SD	M	SD
With Fear - Safe	23,07	,000	3,42	1,71	2,80	1,67
Sloppy - Beware	6,32	,012	3,81	2,01	3,41	2,12
Unprotected - Protected	7,39	,007	3,07	1,66	2,72	1,67
Weak - Strong	9,97	,002	5,05	1,53	4,64	1,71
Sad - Happy	6,61	,010	4,77	1,68	4,41	1,84
Nervous - Calm	24,03	,000	4,37	1,88	3,69	1,80
Carefree - Worried	12,23	,000	5,76	1,37	6,10	1,233
Stressed - Relaxed	4,29	,038	3,49	1,65	2,87	1,59
Confused Mind - Clear Mind	25,95	,000	4,98	1,62	4,56	1,75
Spread Myself - Infect Others	9,67	,002	2,81	1,85	2,32	1,76
Social Rejection	13,16	,000	2,39	1,69	2,74	1,93

In relation to professions, the results showed that there were differences in the variables in table 3, and specifically between the indicated groups.

Table 3. ANOVA of the differences between the means of the self-assignment of adjectives according to the type of HP

Adjective Dimensions	F	p	Differences between health personnel (Comparison term 1-2)	Comparison term 1		Comparison term 2	
				M	SD	M	SD
Sloppy - Beware	4,380	,000	NCT- Doctor	4,03	2,34	3,18	1,86
			NCT - Nurse	4,03	2,34	3,24	2,02
Bad - Good	2,376	,007	Adm – Fisio	3,75	2,18	5,54	1,43
Pasive - Active	3,353	,000	NCT – Doctor	5,85	1,42	5,36	1,49

			Nurse – Doctor	5,77	1,32	5,36	1,49
Cruel - Kind	2,876	,001	NCT – Doctor	6,21	1,25	5,84	1,17
Punished - Awarded	3,347	,000	NCT – Doctor	3,68	1,77	2,99	1,30
Unpleasant - Nice	2,486	,004	NCT – Doctor	5,68	1,55	5,14	1,47
Cold – Warm	1,993	,026	Adm – Matron	4,00	1,91	5,78	1,04
			Adm – Ter.Oc	4,00	1,91	6,20	0,79
Useless - Useful	5,405	,000	NCT – Doctor	5,89	1,51	5,31	1,55
			Nurse – Doctor	5,85	1,45	5,31	1,55
			NCT – Fisio	5,89	1,51	4,52	2,00
			Nurse – Fisio	5,85	1,45	4,52	2,00
			Matron – Fisio	5,84	1,14	4,52	2,00
Rigid – Flexible	2,621	,003	Nurse – Doctor	5,53	1,43	5,06	1,39
Coward - Brave	2,723	,002	Doctor – Nurse	4,89	1,40	5,33	1,38
			Adm – Nurse	3,83	2,17	5,33	1,38
			Adm – Ter.Oc	3,83	2,17	5,90	1,52
Liar - Sincere	2,288	,009	NCT – Doctor	1,19	1,15	5,80	1,24
			Nurse – Doctor	6,20	,27	5,80	1,24
Serius - Fun	2,273	,001	NCT – Doctor	4,45	1,89	3,85	1,60
			Doctor – Ter.Oc	3,85	1,60	6,00	,82
			Nurse – Doctor	4,37	1,71	3,85	1,60
Lost time - Time well spent	4,375	,000	NCT – Doctor	5,35	1,48	4,43	1,52
			NCT - Nurse	5,35	1,48	4,74	1,65
Trivial - Important	2,816	,001	NCT – Odont	5,08	1,60	2,00	1,73
			Nurse -Odont	5,05	1,53	2,00	1,73
			Matron –Odont	4,97	1,12	2,00	1,73
			Ter.Ocu -Odont	5,60	1,71	2,00	1,73
Harmful – Beneficial	4,135	,000	NCT – Psych	5,54	1,58	3,00	1,58
			NCT – Adm	5,54	1,58	3,75	2,30
			Doctor – Psych	5,28	1,30	3,00	1,58
			Doctor – Adm	5,28	1,30	3,75	2,30
			Nurse – Psych	5,45	1,43	3,00	1,58
			Nurse – Adm	5,45	1,43	3,75	2,20
			Matron – Psych	5,62	1,07	3,00	1,58
			Matron - Adm	5,62	1,07	3,75	2,30
			Odont – Psych	7,00	,00	3,00	1,58
			Ter.Oc – Psych	6,00	1,25	3,00	1,58
			Ter.Oc - Adm	6,00	1,25	3,75	2,30

Significant differences were also found in the self-assignment of the dimensions according to the type of contract they had (Table 4), their political orientation (Table 5) and if they worked with patients with Covid-19 (Table 6).

Table 4. ANOVA of the differences between the means of the self-assignment of the adjectives according to the type of contract.

Adjective Dimensions	F	p	Differences between type of contract (Comparison term 1-2)	Comparison term 1		Comparison term 2	
				M	SD	M	SD
Dissatisfied - Satisfied	3,976	,001	Eventual – Interim	4,23	1,87	3,69	1,98
			Unemployed - Freelance	6,25	1,50	2,62	1,77
Dishonest - Honest	2,168	,044	Retired - Freelance	2,50	,71	6,62	1,06
			Victim – Hero	4,007	,001	Eventual– Interim	3,53
Sad - Happy	4,591	,000	Eventual – Interim	4,85	1,66	4,28	1,89
			Eventual - Permanent	4,85	1,66	4,35	1,84
Punished – Awarded	2,257	,036	Eventual – Interim	3,59	1,53	3,20	1,43
			Useless - Useful	6,499	,000	Eventual – Freelance	5,82
Gossip - Discreet	3,676	,001	Interim – Freelance	5,74	1,51	3,25	2,43
			Permanent - Freelance	5,66	1,57	3,25	2,43
			Interim – Resident HP	5,83	1,28	4,87	1,55
Carefree- Worried	2,676	,014	Permanent – Resident HP	5,89	1,22	4,87	1,55
			Eventual - Permanent	5,85	1,32	6,15	1,18
Serious - Fun	4,5	,000	Eventual – Interim	4,74	1,70	4,20	1,72
			Eventual - Permanent	4,74	1,70	4,14	1,74
Trivial - Important	3,825	,001	Eventual – Freelance	5,01	1,46	3,37	1,60
			Permanent - Freelance	5,04	1,45	3,37	1,60
Confusingly - Clear Mind	2,259	,036	Unemployed- Resident HP	6,75	,50	3,85	1,55

Table 5. ANOVA of the differences between the means of the self-assignment of adjectives according to political orientation.

Adjective Dimensions	F	p	Differences between political orientations (Comparison term 1-2)	Comparison term 1		Comparison term 2	
				M	SD	M	SD
Dissatisfied - Satisfied	6,638	,000	Right-Wing – Left-Wing	3,59	2,04	4,14	1,93
			Center – None	4,02	1,94	3,34	1,96
			Left-Wing - None	4,14	1,93	3,34	1,96
With fear – Safe	3,746	0,011	Right-Wing- Left-Wing	2,68	1,67	3,14	1,76
			Sloppy - Beware	4,01	0,008	Right-Wing- Left-Wing	3,19
Unprotected - Protected	4,419	0,004	Center-Left-Wing	3,25	1,98	3,70	2,06
			Right-Wing- Left-Wing	2,56	1,68	3,04	1,68
			Center-Left-Wing	2,69	1,61	3,04	1,68

Table 6. ANOVA of the differences between the means of the self-assignment of adjectives according to whether or not they work with patients with covid-19.

Adjective Dimensions	F	P	Work with patients covid-19			
			Yes		No	
			M	SD	M	SD
Victim – Hero	9,915	,002	3,20	1,47	3,54	1,38
With fear - Safe	8,422	,004	2,84	1,67	3,21	1,78
Sloppy - Beware	7,097	,008	3,40	2,10	3,83	2,09
Unprotected - Protected	8,378	,004	2,72	1,65	3,08	1,71
Pasive - Active	19,239	,000	5,76	1,38	5,28	1,59
Sad - Happy	4,149	,042	4,43	1,84	4,71	1,66
Punished – Awarded	4,151	,042	3,32	1,49	3,55	1,51
Useless - Useful	48,429	,000	5,83	1,45	5,03	1,81
Coward - Brave	9,777	,002	5,25	1,46	4,90	1,46
Carefree - Worried	9,240	,002	6,09	1,21	5,80	1,46
Stressed - Relaxed	8,252	,004	2,92	1,62	3,27	1,56
Trivial - Important	4,429	,036	5,00	1,50	4,76	1,53
Social Rejection	14,637	,000	2,78	1,93	2,24	1,66

Regarding the day, the results revealed that there were significant differences between April 14 and 16 in the dimension victim / hero, $F(5, 1153) = 4.05$, $p = .001$, so that on April 16 felt more heroes ($M = 3.45$, $SD = 1.50$) than on day 14 ($M = 3.09$, $SD = 1.51$).

No significant differences were found in the adjective dimensions depending on the people who lived at home (all $F \leq 2.33$; all $p \geq .054$).

The results were made available to the participants through the social networks used to disseminate the questionnaire.

DISCUSSION

This study offers interesting conclusions about our healthcare personnel. The fear of one's own contagion greater than that of infecting others could be interpreted as belonging to self-centeredness, but taking into account the responsibility of these professionals, we can suggest as a hypothesis that the result is due to the fact that when they return home they keep all the measures hygiene and safety standards that have been established. This is in line with previous studies that show the high level of awareness of health professionals in the risk they have of infecting other people, including members of their families ^(26,27).

In relation to gender, it has been precisely shown that the emotions of our HP in the current COVID19 pandemic situation is highly mediated by the stereotypes traditionally associated with men and women. This is in line with previous studies that have found that stereotypes about men and women not only affect the perception that other people have about nurses, but also the roles that, based on these stereotypes, they must cover (more emotional tasks versus more competency or leadership tasks)⁽²⁸⁾.

Regarding the usefulness that the Nursing staff confers on themselves (useful, courageous, important and sincere), it must be said that it is congruent with the social recognition of these groups of more risk, in the first line of battle in the pandemic, as It has been recognized in multiple codes of professional associations and works on nursing ethics, its work consists not only in curing but, and especially, in caring^(29,30). This means accompanying the death process, and living these last moments relieving physical and emotional suffering when there is nothing else to do.

The direct relationship found between the political orientation and the degree of satisfaction with this pandemic could be explained by a high degree of confluence of these people with the party for which they vote; Some theories⁽³¹⁾ understand that excessive confluence is a defense mechanism in which the confluent person loses contact with himself, including his own feelings and thoughts, to avoid any confrontation with the other.

The temporary staff hired on these dates, for the most part, have been assigned to work on the front line with patients affected by covid19 which has obtained a lot of social recognition and could be the reason why they felt more heroes than victims, while the permanent staff shows significantly more concern than the contingent. This may be related to the fact that, with greater knowledge and experience, there is also more awareness of risks.

Life-saving health workers who fight on the front lines to protect the public may also experience social distancing, changes in the behavior of their family members, and may be stigmatized as suspected carriers of the disease. They may develop sadness, anger or frustration because their friends or loved ones may have unfounded fears of contracting the disease from contact with their previously infected friend or relative, even though it has been determined that they are not contagious⁽²⁶⁾.

Still, this work is not without its limitations. The type of snowball sampling has the limitation that the researcher does not know the true distribution of the sample. On the other hand, the results yielded information on the days on which the questionnaire was carried out, but we cannot know how these could evolve over the days depending on the evolution of the pandemic.

This study leaves the door open for future research to clarify the reasons why workers feel unprotected, afraid and stressed. Reviewing the trajectory of the pandemic, and given the results of this study, it may be interesting to study the psychological consequences that working without IPE (individual protection equipment) has had on nursing staff and NCTs.

CONCLUSIONS

The results of this study show that the HP feels very unprotected, afraid and stressed, giving more importance to their own contagion than to the one they can infect their family or friends, probably because they are extreme in the security measures they are complying with when they get home. The group of health professionals, in general, perceives social rejection when their environment knows that they work with Covid19 patients. However, even despite the stress and pressure endured, they perceive their

work as effective and beneficial and feel good about themselves, which suggests that their motivation exceeded anxiety and discomfort, at least in these first days of the pandemic, in which there seemed to be no burnout.

The differences found regarding the sex of how they feel lead us to conclude that it is highly mediated by the stereotypes traditionally associated with men and women: health professionals feel much safer and stronger, while professionals in the same field describe themselves as emotions as worried and with a greater perception of social rejection. Differences were also found in how nurses feel about eating disorders and doctors, so that the nurses felt more useful, courageous, important, and sincere.

Another interesting result is that the emotions felt by healthcare personnel were strongly influenced by their political orientation. People who have defined themselves on the left were more satisfied, safe, cared for and protected than the rest of the political orientations.

The news of April 15 about the advent of a new great economic depression and that this crisis would be primed in Italy and Spain due to their mismanagement in the face of the pandemic strongly affected the emotions of HP, increasing the heroism felt by these professionals, who it was intensified in personnel with temporary contracts, by substitution after sick leave due to covid19 or by reinforcement contracts caused to the health emergency situation by to the expansion of covid-19 in Spain. These temporary staff felt even more important, useful, hero and rewarded than the interim staff.

Based on the data obtained, we consider the possibility and need for a psychological health protocol for these HPs. We found similarities with previous studies⁽¹³⁾ that concluded that it would be advisable to improve communication about preventive measures in periods of pandemic to increase their adherence as well as to provide psychological support to health personnel, since a significant stress load is generated due to fear of getting sick, infecting their families and the high workload.

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ISSN 1695-6141

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