

## Stress on Human Health Resources as A Result of The COVID-19 Virus

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### ABSTRACT

The world has been paralyzed by a new pandemic, efforts to mitigate the spread, the necessary medical intervention in infected patients, the problems of health systems have shown the value of the personnel working in the health sector. The objective is to reflect on the implications of the Human Resource of health in the care of COVID-19. Arguing that health work in the urgent situation of the pandemic can generate stress as a consequence. The intervention to temper the spread of the virus makes human resources vulnerable to health, these repercussions are exalted by working hours and overwork. It delves into the problem of stress as part of mental health and the daily work of human resources. It concludes with a series of suggestions that could contribute to the phenomenon of stress in human health resources.

### KEYWORDS

COVID-19, Stress, Human Health Resource, Medicine, Work.

So the first thing the plague brought to our fellow citizens was exile.

*Albert camus*

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## Introduction

In the course of epidemics and pandemics, efforts to contain the spread are exuberant because the general population depends on it, all organisms participate, they serve as helpers to mitigate a spread, as in the case of influenza the World Health Organization [1] stated that the rapid containment of pandemic influenza by national authorities, with the assistance of WHO and international partners, aims to prevent or delay the widespread spread of an influenza virus with pandemic potential, as soon as possible after your initial detection. The rapid containment of the pandemic represents an extraordinary action of public health, which is based on the routine measures of response to outbreaks and disease control but goes beyond them. This extraordinary effort represents a margin of urgency in the face of new epidemics or pandemics.

The work of the Health sector becomes essential, urgent and primary since they direct the actions to overcome the pandemic calamity that occurs, the WHO [1] in the same case of influenza urges The health sector (which includes public health and public and private health care services), has a natural leadership and advocacy role in pandemic influenza preparedness and response efforts. In cooperation with other sectors and in support of its national intersectoral leadership, the health sector should provide leadership and guidance in the required activities, in addition to raising awareness of the risks and possible health consequences of an influenza pandemic.

The importance of the role of the human health resource is remarkable, of an urgent nature to encourage reflection on the consequences that the participation of staff in an activity that involves extraordinary actions, that is, activities in addition to common practice, brings with it. The reflection therefore focuses on glimpsing the effects of those extra activities that the human health resource performs, analyzing whether the actions were the ordinary daily work of doctors, nurses, epidemiologists, etc. can cause stress in any of its manifestations, thus exposed, it seeks to propose some activities that help mitigate the effect of stress in the extra activities caused by the specific case of COVID-19.

In December 2019, an outbreak of a new coronavirus pneumonia occurred in Wuhan (Hubei, China). In early 2020, the novel coronavirus disease (COVID-19) began to spread throughout China. This rapid increase in confirmed cases and deaths has created problems such as stress, anxiety and depression, both in medical personnel and in the general population [2]. Such an assertion suggests that medical personnel exposed to a pandemic respond quickly with symptoms that disrupt mental or psychological health in addition to the COVID-19 pandemic identified as the main problem. The pandemic in this sense becomes the effect of other diseases that threaten health, not only in patients who have acquired the virus, but those who are exposed to mitigate it.

## Stress Concept

In the first instance, stress must be understood in all its composition, the American Psychological Association [3] defines it as a feeling

of overwhelm, worry and exhaustion. Stress can affect people of any age, gender and personal circumstances and can lead to both physical and psychological health problems. The way in which stress is experienced is wide, this implies that the identification of the condition is required with greater clearance.

There are various aspects that generate stress, that is, stressors, Andueza [4] assures that From a conception of stress as a dynamic and interactive process, an objective stressful value cannot be established, since it depends on how each person perceives said situation. However, even given this limitation, it is possible to identify what makes a specific event or event stressful. Such an assertion is accompanied by the two main stressors, psychosocial and biological.

Psychosocial stressors are situations or stimuli that do not directly cause the stress response, but rather become stressors that depend on the interpretation that the person assigns them. So in this aspect, the way of being of each one will have a lot to do with it, since there will be people more prone to stress and others who, in the same situation, will not be affected by the way they conceive it [4] and the biological stressor that fundamentally are stimuli or situations that become stressors due to their ability to produce certain biochemical or electrical changes in the body that automatically trigger the stress response, regardless of the interpretation that each one make of that situation [4].

It is necessary to point out that despite existing and being exposed to stressors, when a stressor becomes chronic, it is when health problems appear because in the face of the unknown response or no action to eliminate the stressor, the patient's health begins to deteriorate. American Psychological Association [3] comments that Excess stress can also cause serious emotional damage. People can cope well with mild episodes of stress by using the body's natural defenses to adapt to change. But excessive chronic stress - that is, stress that is constant and persists for a long period of time - can be physically and psychologically strenuous. Unlike other everyday stressors that can be countered by adopting healthy behaviors, chronic stress, if left untreated, can have adverse health consequences, including anxiety, insomnia, muscle pain, high blood pressure, and a weakened immune system. Research shows that stress can contribute to the development of serious illnesses such as heart disease, depression and obesity.

## Stress at work

Thus, it is possible to affirm that anyone is prone to chronic stress, and it can occur in any space, in this sense, stress at work appears as a concept of accurate and specific analysis of a field. Ramos [5] defines stress at work as the harmful physical and emotional response that occurs when job requirements are not compatible with the capabilities, resources or needs of workers. The stress of work can lead to poor health, and even injury. The requirements of organizations or institutions as demands increase lead to greater activities for workers, if there is not a good management of human resources, it is likely to generate non-conformities.

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Stress at work can be dangerous, del Hoyo [6] affirms that It is obvious that many difficulties of workers, which affect their health and the performance of their task, originate at work, due in part to the fact that they remain most of the time in it and in it they relate and develop. An effective response to stress represents a successful adaptation. But the body does not always respond perfectly or adequately; when this happens, a physically negative outcome or an adjustment condition ensues. This type of condition can affect the heart, blood vessels, and kidneys, and includes certain types of arthritis and skin conditions. The possible consequences of stress on health are incomplete if the effects of stress on mental health are not mentioned. To the frustration, anxiety and depression that those who are subjected to stress must be added other ways in which it can manifest itself: alcoholism, drug dependence, hospitalization and in extreme cases, suicide. Even minor mental disorders caused by stress, such as the inability to concentrate, reduced attention span and impaired decision-making skills, they can have a significant cost within the organization, in the form of a decrease in efficiency and effectiveness. Without a doubt, stress at work represents a health problem for institutions and organizations.

There are different consequences of work stress, from physiological and psychological aspects to negative effects on the employer, the relationship between employer and employee is shaped by all the conditions that both are creating, however there are aspects that are not entirely controllable, Ramos [6] make a list of some conditions that can generate stress:

The design of tasks: It refers to excessive activities, little rest, long working hours.

Management style: Not considering workers in joint decisions.

Interpersonal relationships: Little interaction between workers.

Work roles: Little support, ignorance, about responsibility.

Professional concerns: Little growth, no recognition.

Environmental conditions: Noise, little space.

### **Human Resource Health, stress and COVID-19**

The manifestation of stress in the human health resource is of the utmost importance, recognizing if health personnel become ill in the work environment can be an irony since we can think of the Sick-Sick binomial, where both, the doctor and the patient fall ill and are treated with each other.

Barraza et al. [7] assert that Definitely, health institutions exert great influence on the health-disease process of the personnel who work in them, in addition to the fact that said institutions lack programs, policies, campaigns directed at their own personnel in order to prevent and / or treating diseases caused by various factors such as overcrowding demanding health services, the innumerable forms of intra- and inter-institution control, the lack of material and equipment necessary to carry out their

work, conflicts with colleagues or superiors, this as a condition to generate stress exemplifies the problems that the human resource of health can suffer.

The sum of circumstances cement that The consequences of stress in the health professions are especially serious and visible due to the constant public exposure of their work and the added factor of their vocation of service. The professional relationship with the patient is not easy and requires a series of tools, skills, abilities and attitudes on the part of healthcare personnel. In addition, the professional has to know how to establish the necessary therapeutic distance with the patient without, therefore, losing empathy and commitment. Added sources of stress are the need for constant updating of knowledge, the use of new technologies and the current budget cuts in the public health system [8]. Each aspect that focuses the activity of human resources in health will have an impact in itself, vulnerable groups may occur depending on the characteristics of the personnel, When defining vulnerable groups among doctors, the influence of variables such as professional specialty stands out, and gender say the authors García and Gill themselves.

Aguado, Bátiz and Quintana [9] give strength to the idea that stress in human health resources is of the utmost importance to identify it, because when carrying out a bibliographic analysis on the current state (up to the year of publication) of stress concluded that Most of the authors agree that the stress levels to which health workers in the hospital environment are subjected are high and have a negative impact on their health. The main symptoms associated with stressful situations are musculoskeletal, depressive and psychosomatic disorders and Burnout denoting the presence of stress as a silent disease that undoubtedly needs to be addressed. The presence of stress in the human resource of health is that there is an extreme need to take care of those who take care of the health of the population in routine activities, since the manifestation of stress is reflected in all individuals, in the way they are organized, even in beliefs of superiority. Again Aguado, Bátiz and Quintana found there are different levels of exposure to stress in different specialties, areas or services of the hospital generating risk conditions to promote stress characteristics such as age, experience or gender.

Stress in human health resources is an immediate urgency, since as health systems ignore the health status of their workers, the problem grows, a study carried out by Castillo et al. [10] found several causes of stress in nursing personnel, such as Death and dying, referring to experiencing the death of a patient or talking to a patient about her death. Conflict with doctors due to the combat of ideas and criticism (this cause of stress solidifies the idea of Aguado, Bátiz and Quintana that we mentioned before regarding the different specialties). Inadequate preparation that implies a greater responsibility because lives can depend on unprepared personnel. Workload, because as we have said, long hours and little rest permeate health. In this sense, the importance of reducing stress levels in human health resources is essentially a haste.

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Another example is that of Barraza et al. [7] who comment that Given the results obtained, we realize that internal doctors find themselves with a high degree of Burnout and coupled with the fact that 28% suffer from a probable mental disorder, it becomes a red light to develop programs of prevention and treatment of these pathologies. There are aspects of the individual that contribute to the formation of Burnout. (p. 40); Although the Burnout Syndrome acts differently from stress, we can infer that the manifestation of mental illnesses that directly alter work performance is still worrying.

The health human resource has always strived to sustain patients in their optimal conditions, however it is possible to think that long working hours, workloads, emotional, economic and social aspects impact the health of the staff. In times when humanity is hit by a certain pandemic or epidemic, the human health resource experiences certain health conditions, not only those caused by a certain disease, certain virus, parasite, bacteria, etc. (named epidemic or pandemic), also what contributes in terms of mental health, that is, what is triggered from the pandemic in aspects of coping with the problem.

Now, currently the world has been destabilized by COVID-19, the health sector and its resources are the first to be impacted, however to argue that today the human resource of health can become mentally ill we have to turn to others work on other pandemics, as mentioned by Firth-Cozens (2001) in Marco et al. [11], unattended sick doctors pose a risk to their health and that of their patients and, in addition, they generate endless problems in the family and work environments. In the first instance, it is assumed that when a doctor is ill, several problems are caused that are impacted in different contexts.

### **What happens to a doctor while he is exposed to a disease?**

There are examples of works carried out in which the mental health conditions of doctors are evaluated, in this regard, in a study by Múnera, Uribe and Yepes [12] an analysis of the condition of depression in doctors in Colombia was carried out. cited Gil who assured that Doctors and patients interact in a context loaded with restrictions of a social nature such as stigma, administrative such as the impositions of the General System of Social Security in Health, political as the demands on resource efficiency, geographical, such as those that are evident in the rural area of the country, and economic, such as those experienced by millions of Colombians today. Situation that puts the general practitioner in check, who sees his hands tied and, therefore, evaluates the depressive syndrome as a terrifying phenomenon that carries multiple complications for the patient's quality of life and the quality of medical practice. , Exposing the endowed that the doctor suffers to treat diseases in a patient.

Exposure to the disease is initially an effect, the participation of the human health resource also becomes a banner to stop the epidemic in a risk if it is not understood how fundamental mental health is within the human resource. An analysis by Fumadó and Trilla

[13] assured the situation of the Ebola virus that medical personnel were very scarce, concluding that in the year of investigation regarding the Ebola virus The current increase in aid, official and from various NGOs , in the West African area, it implies an increase in the probability of contagion among expatriate personnel or of high-risk exposures, which involve medical evacuation of said personnel, on the one hand, and the risk of detecting an imported case among these personnel once you have returned to your home country after your period of service in the epidemic area. Examples of the above are what has already happened in Spain (case of a risk exposure in a Doctors Without Borders doctor) and in the United Kingdom (detection of a confirmed case in a nurse after their return from the epidemic area), in addition to several more cases of repatriation of confirmed cases or high-risk exposures in several countries of the European Union and in the USA. (p. 128), this exposure to the Ebola disease also supposes an effect on the mental health of those who treated the disease, since knowing that one is sick can be considered a factor to promote a mental change, in this sense It is possible to think about stress, because as Pérez et al. [14] the non-specific reaction or response of the organism or any change generated by the impact of important events, resulting from a sudden or continuous action, whether pleasant or unpleasant, positive or negative.

Gomez et al. found that between 14.6% (STAI questionnaire; 11.1% of men and 15.6% of women) and 20% (scores of probable clinical problem in the HADS questionnaire) of the HCP who work in the ICU present symptoms of anxiety. Perhaps it is interesting to know that in a previous study carried out with patients in the same ICU, it was found that 37.5% and 30% of them had anxiety and depression scores in the same range, that is, the levels of both were higher, but above all, the difference in anxiety levels stands out showing that in normal practices health personnel suffer from mental or mood problems. Thus, within a contingency, or a healthy state of emergency, it is necessary to reflect on the state of stress in which doctors are subjected. If we refer to the specific comments on the causes of stress, we find that precisely the harassment of the working day, the tasks to be carried out and exposure to illness are consequences to generate stress.

In the current case, the healthy situation due to COVID-19, it is necessary to make visible the current state in which the human health resource is, for example, Ozamiz et al. [2] analyzed the specific case of the COVID-19 pandemic with a sample in Spain and found that there is a comparative reduction between doctors in Spain and what they report in China due to aspects such as temporality, since the manifestation in Spain occurred a month and a half after in China, the knowledge of the virus and the manifestation of the virus in Spain as this was in the first days of the outbreak in the country. However, this leaves to consideration that stressful consequences exist, that the manifestation of a pandemic can increase stress levels and even affect other mental clinical conditions such as depression or anxiety. Regarding the manifestation of stress without the effects of a pandemic, we can see them in the work of Muñoz et al. [15] where they point out that Out of a total of 34 stressful situations, 48.5% of the Nurses present stressors that are related to the different



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environments that the instrument evaluates; The stressors with the highest frequency of appearance were: Observing the suffering of a patient, corresponding to the psychological environment. Perform procedures that involve painful experiences for patients, corresponding to the psychological environment. Having to perform many tasks not related to Nursing such as administrative tasks, corresponding to the social environment and insufficient staff to adequately cover the work of the unit, corresponding to the physical environment.

Of all this, the Pan American Health Organization [16] has pointed out that Post-traumatic stress (or some symptomatic manifestations of this picture) is a late or delayed type disorder that appears as a consequence of exceptionally threatening or catastrophic events; the experience of an epidemic of great magnitude, especially in people who have experienced significant losses can be the cause of symptoms of post-traumatic stress.

Arriving the elements of stress in a global emergency situation such as the COVID-19 pandemic itself suggests that the situation be addressed in different ravages, the human resource of health is exposed to factors that undoubtedly have to face, however not all have the same characteristics to bear the exceptional loads that are experienced by the virus.

## Conclusion

The manifestations of stress are clear in certain circumstances, COVID-19 has forced us to act as an emergency to stop the situation, not without leaving havoc on human health resources. To this, Ozamiz et al. [2] assure in their research that This research shows us that psychological well-being is key when it comes to coping with COVID-19 and preventing mental illnesses and managing emotions. This implies that people must prepare themselves psychologically and perceive security in the face of possible adverse situations that they still have to experience. It also implies preventing and facing the crisis by managing effective social and health measures.

For Solís and Vidal [17] there are some considerations to face stress levels There are 18 coping strategies grouped into three coping styles. The first of these styles called << Solve the problem >>, comprises the strategies: Concentrate on solving the problem, Strive and succeed, Invest in close friends, Seek belonging, Look for the positive, Seek relaxing diversions, Physical distraction and Reserve it for himself. The second style is called Referral to others and the strategies are: Seek social support, Social action, Seek spiritual support, and Seek professional help. The last style, the Non-productive Coping includes the following strategies: Worry, Illusions, Lack of coping, Ignore the problem, Reduce tension, Reserve it for yourself, Self-blame each confrontation works depending on the circumstance, in our opinion the style Solve the problem and the strategies Concentrate on solving the problem and Physical distraction can bring great reductions to stress in human resources, thus As in the second style Referring to others, the Social support and Seeking professional help strategies allow

the information on the stress-causing problem to be expanded to a certain group and thus broaden the framework of solutions.

## Stress Reduction

In the same way and together we suggest what Hernández et al. [18] propose as strategies for coping with work stress:

Relaxation training as it reduces muscle tension and increases oxygenation levels. Meditation as a method to listen to oneself and understand mental functioning, in order to be able to preserve oneself. Cognitive restructuring techniques are based on cognitive behavioral psychology (this strategy can only be carried out by an expert professional) as it helps to modify thoughts, attitudes and beliefs regarding stressors by identifying thoughts or ideas, analyzing it rationally.

There are other ways to reduce stress levels, the importance that is highlighted to our thoughts is because these are the ones who provide the ways of relating to the world, in this regard cognitive restructuring allows us to reflect on our thoughts to modify them, this strategy constitutes one of the objectives and fundamental components of coping and managing work stress, since much of stress is created by negative thoughts and worries. It involves changing the way we evaluate or assess a certain situation [19], it is very important that, given the situation experienced by COVID-19, all the theoretical, methodological and direct action tools are used to mitigate the spread of the virus without neglecting the effects on the mental health that can be caused to attend to this situation, of which Ozamiz et al. [2] comment that In addition, in the face of the confinement imposed by the authorities and in the face of a threat of illness, the levels of stress, anxiety and depression increase in the population, but above all they do so in those groups called at risk. Therefore, it is important to develop programs that protect these groups. On the other hand, it is striking that young people show greater stress than older people. This may be due to multiple factors that should be investigated, but it is pointed out that, given the situation, it is essential to create programs, both for academic support and psychological support, so that they are based on real and enlightening information about this pandemic. Also, it would be very convenient to analyze the content they are receiving from social networks and help them work on the necessary skills to be able to filter them. In short, in this situation of unprecedented confinement for the Spanish population, it is very important to attend to the psychological factors of citizenship. It is key to analyze the effects that the COVID-19 crisis will produce on people's health. For this reason, we believe that this type of research can help generate social and health treatment initiatives to prevent and alleviate the psychosocial effects of the pandemic. It depends on that society advances and comes out stronger. This research offers an interesting starting point to be followed in this long process that lies ahead.

For Hernández et al. [18] the increase in participation and control over the work carried out mitigates the effects of stress, hence the planning, organization and execution of the work by the group,

as well as the social support of colleagues and supervisors, have a favorable impact on job satisfaction and health which allows the human health resource to maintain a balance between their activities and the workload.

Teixeira et al. in a study carried out on hospital staff found that The strategies most used by the sample of this research were strategies focused on the problem (60.0%). This strategy corresponds to an active way of reacting to the stressful situation, since the confrontation focused on the problem is aimed at solving the stressful situation clarifying that having a greater knowledge of the stressful problem helps to combat it, or in other words The higher the level of control at work, the greater the probability of nursing professionals to use active strategies to fight with it. stress [20].

In addition to the above, in the field of professional practice of health human resources there are strategies that the institutions or organizations themselves carry out to deal with the stressors of the workers. The IMSS through the page of the Government of Mexico [21] has provided information to address the situation of COVID-19, providing knowledge about the incursion of health personnel in the face of COVID-19 and providing online courses regarding the virus: as:

<http://educacionensalud.imss.gob.mx/es/coronavirus/cursos-en-1%C3%ADnea>

giving support articles to staff to expand coping strategies:

<http://educacionensalud.imss.gob.mx/es/coronavirus/bienestar-del-personal-de-salud>

or by making videos to prevent any unforeseen events related to COVID-19:

[http://educacionensalud.imss.gob.mx/es/coronavirus/material\\_educativo\\_SS](http://educacionensalud.imss.gob.mx/es/coronavirus/material_educativo_SS)

With this, the intention is focused on disseminating information about what medical practice encompasses in times of pandemic, since the very characteristics of health practice, it is essential to understand that stressors are greater and this implies greater mitigation, concrete actions direct and effective work as well as multidisciplinary work that suggests greater efficiency for the staff themselves, since in this way links are strengthened, activities are better leveled and the reduction in workload is considerable, this implies greater control in the activities of the own human resource of health.

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