

Experiences of the health care team in a Critical Patient Unit during pandemic

Summary

Introduction: Since March 3, 2020, the SARS-COV-2 pandemic begins in Chile. Generating an impact to everyone and to different social groups, such as nursing and the health team, for the performance in the care of critical patients, impacting in different areas, such as physical and psychoemotional.

Objective: To reveal the experiences of nurses and other members of the health team regarding the care of patients with SARS-COV-2 in an Adult Critical Patient Unit.

Methodology: A qualitative phenomenological study was carried out in 12 people with questions that facilitate dialogue, with respective analysis in Atlas.ti.

Results: Identifying three Metacategories; effects of the pandemic for nursing and other members of the health team, facilitating and hindering elements in nursing experiences and other members of the health team.

Conclusion: There are nursing staff and a health team worn out as a result of direct care for critical patients, mainly in the physical and psycho-emotional aspect, without coping tools, not intervened and/or with late interventions. In addition, non-compliance with Law No. 16744, with low coverage in the Occupational Health and Safety Management System.

Keywords: life change events, nurses, health personnel, pandemics, coronavirus infections, patient care (DeCS)

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Introduction

SARS-COV-2 emerges in 2019, in Wuhan (China) where the Municipal Health Commission, reports 27 cases of viral pneumonia in humans, of which 7 were severe, with etiology of a new pathogen, known as novel Coronavirus 2019 (2019-nCoV), and then as Coronavirus disease 2019 (COVID-19) caused by SARS-CoV-2 virus.^{1,2,3} The first "Latin American" case of COVID-19 was registered in Brazil on February 26th and the first death due to the infection in the region was announced in Argentina on March 7th, 2020.⁴ On March 3, 2020 the SARS-CoV-2 virus reaches Chilean territories.¹ Although the pandemic reached Latin America later, the world was already facing a health crisis, with excessive demands on the health system; imposing the development of adaptation mechanisms, optimization of resources and self-care measures for the entire health team, however, with greater emphasis on intensive care, as leaders and referents of work teams.⁵ The pandemic has impacted the entire community, showing up in social and communicational networks at "the front line", referring to the health team, who have been affected in all areas (emotional, physical, social, labor, health).⁶ From the ethical and social point of view, it is stated that human rights are inherent, without distinction of any condition.⁷

Therefore, among the most affected rights, the following are described:

- I. The right to social protection, to an adequate standard of living and to the enjoyment of the highest attainable standard of physical and mental health; as evidenced by research, health personnel have been affected on the emotional level, because they have had to leave their homes, away from their children and family, and on the physical level, through strenuous work shifts.⁸
- II. The right to work under fair and favorable conditions; different from what is stated in studies mentioning that the health team is

concerned about the scarcity of personal protective equipment to care for patients with COVID-19 disease and the imminent fear of becoming infected and putting their families at risk.⁹

- III. The right to equality and the prohibition of discrimination, the health team in situations is rejected by society when they learned that they provided care to patients with COVID-19; not wishing to share the same spaces.¹⁰

The Labor Code, in Book II on worker protection, states that the employer is obliged to take all necessary measures to protect the life and health of workers, informing them of possible risks, maintaining adequate conditions of hygiene and safety, as well as the necessary equipment to prevent accidents and occupational diseases.¹¹ In addition, this indication is reinforced by Law No. 16,744, which indicates that in any institution with more than 100 employees there must be a joint committee in charge of monitoring and coordinating occupational health and safety actions.¹² With respect to the above, all the health care centers that received COVID-19 patients were not prepared according to Serrano and Garcia,¹³ however, security and physical protection measures were provided to health care workers. Although this occurred, the psycho-emotional health of the employees was left unprotected in a broad spectrum, because they would be affected by the constant exposure to a probable contagion, patient mortality and in some cases, death of employees.¹³

From the epidemiological aspect, as of December 31, 2018, 583,656¹⁴ are registered as individual health care providers, equivalent to only 3.33% of Chileans, a low percentage; however, it has relevance because each one lives in a household and (or) has a family with whom he/she shares and relates, therefore, there is a domino effect.

Approaching the local reality, in the Hospital Hernán Henríquez Aravena (HHHA), the Adult Critical Patient Unit (UPC) consists of workers: administrative, auxiliary, nursing technicians (TENS) and

professionals (kinesiologists, nurses, doctors), comprising a total of 171 employees, of which those who provided direct care to serious patients with COVID-19 (15) were contemplated and with the aim of protecting at-risk employees, the establishment generates a resolution. Some of the reasons for the resolution were: immunocompromised staff members, over 65 years of age, pregnant women, mothers with children under 2 years of age, caregiver of a third party with risk factors. In addition to this, medical leaves, mostly psychiatric and as a consequence of the pandemic, led to absenteeism of the health team.¹⁶

Now, it is a relevant topic for Nursing since the health team becomes one of the main and central protagonists in the pandemic, because they help the whole society to overcome this great challenge,¹⁷ therefore, Nursing is the key element within the health institutions, as a care manager and leader. A decisive element for the effective functioning of the organization and the motivator of the team that leads,¹⁷ especially in this moment of crisis. In turn, Cárcamo and Rivas mention in their article that “nursing professionals have emerged as leaders of the health team, due to their training and professional development, with a broad vision of the “human being”, of “care” and of “health”, beyond the visible, which articulates knowledge and actions necessary to offer creative and quality assistance”.¹⁸

The purpose is to contribute to increase the evidence of the experiences of nurses and other members of the health team regarding the care of COVID-19 patients in Adult Critical Care Units and as a research question; What has been the experience of nurses and other members of the health team (kinesiologists, TENS, physicians) regarding the care of COVID-19 patients in a PCU in a hospital in southern Chile between the years 2020-2021? The problem is based on the Adaptation Model of Sister Callista Roy, describing the adaptive behaviors of the person, as the set of processes through which he/she adapts to stress producers.¹⁹ And from environmental psychology, with the integrative model that explains behaviors of human beings under stress environments.²⁰ The objective is to unveil the experiences of nurses and other members of the health team regarding the care of COVID-19 patients in a PCU, in a hospital in southern Chile between 2020-2021, in order to answer the question posed above.

Methods

Phenomenological qualitative methodology, since it is interested in understanding what an experience can represent within the context of people's lives. The unit of analysis is the clinical personnel providing direct care to patients with COVID-19 (nurses, physicians, kinesiologists and TENS). The sample was selected by convenience and data saturation, including 12 informants. Inclusion criteria were: shift system, active workers (people who have not been on medical leave in the last 6 months) and in the case of replacement and honorary employees, with a minimum of 6 months of practice. Access was gained through promotion of the study in the Critical Patient Unit, which facilitated communication with potential participants, who after being informed and giving their consent to participate, were contacted directly by the principal investigator. Interviews were conducted with questions that facilitated dialogue, achieving saturation. With an average duration of one hour, in a quiet environment. The data were collected with a voice recorder, with subsequent reliable transcription and analysis in Atlas.ti.

To establish greater rigor, the seven ethical requirements of Ezequiel Emanuel²¹ were used. With respect to the analysis, meta categories and intermediate categories were constructed, which involved a manual categorization, obtaining a matrix of categories, which were refined with the a posteriori bibliographic review. The

saturation of the categories was also considered in order to find the central category, which corresponds to the category with the capacity to associate all of them, on which the discussion is based. Informed consent was obtained from all informants. To comply with data anonymization, a code was assigned to each interview and the data were stored in a computer for the exclusive use of the researchers.

Results

The ages of the 6 nurses, 2 physicians, kinesiologists and tens respectively, ranged between 24 and 39 years, with an average age of 34 years, experience of more than 1 year. From the analysis, 3 meta-categories were obtained a) Experiences lived by nurses and other members of the health team b) Facilitating elements in life experiences by nurses and other members of the health team and c) Hindering elements in life experiences by nurses and other members of the health team.

Effects of the pandemic for nurses and other members of the health care team

Regarding the impact of the pandemic in the psychoemotional area; both in Nursing and the rest of the health team there is fear when facing their first shift with patients infected with COVID-19, to attend them because of the risk of infection. This situation generates sleep disorders, nightmares, with short hours of sleep or simply not being able to sleep. Also anxiety, added to the emotional burden they are subjected to seeing so many patients die and the condition in which they died, hearing the cries of their relatives causing discouragement in attending their shifts and conflict among peers. As for the physical aspect, they pointed out a high level of exhaustion, emphasizing that they were without strength, fatigued; this was due to working many extra shifts and not having a comforting sleep. In addition to the fact that the care of a COVID-19 patient involved several hours of work, because they are not just any type of patient.

With respect to the family and social area, the interviewees point to social isolation. They report that it was necessary to physically move away from friends and family, especially if they were a vulnerable population, with virtual communication. Therefore, there is a change in the way of life of the participants, as a consequence of the health restrictions, which causes a certain degree of stress due to being locked up for a long time and deprived of freedom, without recreational activities, because most of the activities are adapted to the virtual mode. In the work area, at first they were confronted with a disease that was unknown, therefore, nobody had a clear management. They only knew that it could kill people, and in this situation many of the health team left out of fear. There was misinformation and lack of coordination, which generated insecurity among the team as to how to act. Added to this was the high demand for beds. This whole situation of ambiguity generates tense environments and chaotic relationships, so much so that there are problems between the different levels, requiring psychological intervention.

With the passage of time, labor relations have improved, allowing learning instances, training in patient management. Finally, the fact of facing the world pandemic has been described as a challenge. As for the quality of care delivered to patients, they say that it is carried out in the best possible and humanized way, because the only thing that patients have is the health team, because visits are restricted. Finally, from the community's perspective, most of them say that they feel supported by the population, that there have been many acknowledgements and thanks, both physically and through social networks, for the work done by the health team. However, others

mention that there is rejection from the community towards the health team, reflected in actions such as not letting them use the elevator in a building, for example.

Facilitating elements in life experiences by nurses and other members of the health care team

In this meta-category, nurses and other members of the health team point out that different coping mechanisms were developed over time, such as teamwork, visualized through the support among colleagues. Another aspect that favors teamwork is the long hours they shared during shifts, allowing them to make up for the lack of family that most of the health team had, highlighting the human team that was part of the patients' health care. They say that they were able to get to know each other, to know their defects and virtues, improving relationships, tolerating each other, accepting each other as they were, after going through many discussions. They conclude that the pandemic served to unite as a team and always work in the same line. Another element is the availability of resources, one of the most important of which is personal protection equipment. At the beginning there were original masks available, referring to the n95 masks, which over time were changed to kn95 masks due to stock shortages, which had to be kept and made to last for the entire shift, but did not make a good seal.

On the other hand, it is pointed out that the pandemic has its good side, in terms of improving many things, such as equipment and resources that in non-pandemic times could not be had. An example of this was the arrival of new personnel, who came to make up for the deficit of human resources, to mention a few, there was a lack of nurses, tens, etc., which improved the standard of patients, because in times without the pandemic they could not have them. They managed to improve the standard of patients, because the normal is that in ICU there are 3 patients to 1 nurse and ICU 5 is to 1 respectively, which improves to 2 and 4 patients per nurse. Psychological tools were also provided through a psychologist exclusively for UPC personnel with healthy breaks, massages, preventive medicine exams. They point out that these things were implemented because personnel are starting to leave on medical leave.

Another important point for coping with the pandemic is training, all of them point out that in one way or another they study along the way, individually or with other professionals, but they emphasize the importance of having management in critical patients. As a last aspect they allude to the adaptation to the process, pointing out that in some there is a certain degree of pride because they feel part of the history of medicine, being in the pandemic and facing it, referring that they feel a little brave, because it is something that not everyone dares to do, many people start from the pandemic. Now, with respect to the coping mechanisms used at the country level to confront the pandemic, vaccination and its current coverage in the country are mentioned as one of the best strategies, comparing them with other countries. They point out that the measures in the first instance were erroneous, since they lowered their guard and minimized the problem, blaming the health authority for the number of positive cases and the seriousness of the patients. Regarding this same point, they point out that the quarantines and curfew were initially necessary, but that now they have become social control.

Obstacles to life experiences by nurses and other members of the health care team

In the first place, characteristics related to the context in which the pandemic was triggered are described, mentioning the absenteeism of personnel, so that most of the staff was new. This made it complex to organize shifts for day nurses, because leaves of absence and

quarantines were suddenly reported; many of the medical leaves of absence were psychiatric. It also happens that people who do not like to work in a team leave the unit due to different risk factors, such as illnesses or elderly people, and they describe that this benefits the team. In addition, absenteeism is observed in the case of internists who disappear, in fact many doctors disappear, reporting that it is unethical. With regard to the availability of resources, there is a shortage of personal protective equipment (PPE) and fear that supplies may run out. In the first instance, what was most limited were the masks, so the personnel in charge provided us with a limited number of PPE. So, the resources were not always available. As regards shields and goggles, they were also scarce at first, as well as breastplates, so we took care of them and avoided using a breastplate unnecessarily. As for the masks, they had to be made to last the day and a surgical mask had to be used to protect the main one.

When many patients began to arrive, there was a lack of PPE. Then, among the professionals who were not allowed to use the masks were the kinesiologists, and they had to fight and justify to the shift chief that they needed the masks. Another element is the burden of the old staff with respect to the training of new people, because there were many people who were very poorly prepared and according to what they say, they have to be prepared in a very short time. It reinforces what was described above in that mainly the Intermediate Treatment Unit (ITU) trains a large part of the new staff, people arrive from everywhere such as CDT, and from services that do not attend patients such as sterilization, psychiatry and do not have critical patient management. Concluding in how with that little management of critical patients, patients do not die.

Stress is also a hindering element, generated by the arrival of new people who do not have critical patient management, in addition to the fact that the mere fact of caring for covid patients brings with it work overload.

As for the actions of the health authority, they all come to a common point, in that at some point they thought they were fighting alone, because they did not feel supported during the pandemic. The authorities at the national level have offered benefits for the health personnel, but they have not yet made effective those recognitions that had been promised. With respect to the medical union, they point out that there are recognitions that have been given to the rest of the personnel, but that the doctors have been excluded. Regarding the community's position, they describe that it is a difficult area to deal with, because there was a time when people did not believe in what was happening. For the same reason, individualism is seen, according to the interviewees, because despite what is happening, people continue to go out, irresponsible and unaware, alluding mainly to young people.

Discussion

According to the results obtained in the investigation, the pandemic generates impacts in different areas of the health team's life. One of them is the psychoemotional aspect in which they describe fear when facing their first shift of patients with COVID-19, the risk of infection, which generated anxiety. Seeing so many people die causes them an emotional burden that is difficult to bear. Likewise, Minchalla and Chersich point out that the health team works with fear of contagion, emotional distress due to the death of patients, frustration, nervousness in a tense environment, generating depressive symptoms in the health team.^{8,22,23} In addition, there is evidence of sleep disorders and nightmares, as described by Lozano, however, he adds that a series of mental health conditions have been generated in

the health team that can affect their work performance.²⁴ This research shows that psychological interventions have been used late despite the fact that the health team has psychiatric medical licenses.

As for the physical impact, they point out a high level of physical exhaustion associated with extra shifts, fatigue, wear and tear, and that caring for a COVID-19 patient implied several hours of work, because they are not just any type of patient. Likewise, Macaya and Aranda in a Chilean study reaffirm that it has been a time of work overload. But they also allude to the importance of caring for the health team and avoiding the normalization of the pandemic situation.⁵

Regarding the family and social level, it was noted that one of the most affected areas is the social aspect, mainly social isolation. Some voluntarily distance themselves from their families and loved ones because they are a vulnerable population, resulting in virtual communication. Macaya and Chersich also report that the health team is socially isolated, with a deficit in support networks contributing to mental stress.^{5,23} There is a change in the way of life of the participants, as a consequence of the health restrictions, which causes a certain degree of stress because they remain locked up for a long time and deprived of their freedom, without recreational activities. Something new that began to occur is that most of the activities that were carried out in person were adapted to the virtual mode, which in the case of the parents implied a greater overload, as it was necessary to be aware of their children in terms of school, their studies, connecting to classes, among others.

In the labor aspect, there is a lack of knowledge about the disease, in terms of its management and treatment, as Andriu²⁵ points out. However, this research shows that in the institution there is misinformation and lack of coordination, which generates insecurity in the team's actions. In addition, there is a high demand for beds, which implies modification of the unit. This situation generates tense environments and chaotic relationships, requiring psychological intervention. As time went by, labor relations improved and there were instances of learning and training. It is evident how the processes of change and/or transformation can generate unpleasant environments, especially for people who are reluctant to change. Therefore, facing the global pandemic is seen as a challenge. As for the quality of care delivered to patients, it is delivered in the best possible and humanized way, because the only thing the patients have is the health team because visits were restricted, which is not only in Chile but also in the rest of the world, as described by Horsch in Sweden, in the maternity ward of a hospital the father is excluded from the birth, in order to reduce the risk of contagion, so the health team was empathetic with the pregnant women.²⁶

Regarding the community, the health team feels supported by the population, because there were many acknowledgements and thanks, both for nursing and for the health team. Sources confirm the recognition that exists towards the nursing professionals, despite not having the resources, the quality of care stands out.²⁷ However, others mentioned that there was rejection from the community reflected in actions such as not allowing them to use the elevator in a building. Bedoya, on the other hand, evidences it, pointing out that there were episodes of physical, verbal and psychological violence, discrimination in the streets, stigmatization towards the health team.²⁸ However, in times of crisis, different coping mechanisms arise on the part of the health team, such as teamwork, the merger of Intermediate Treatment Unit to Intensive Care Unit, due to the requirement of such beds, the support among colleagues for the long hours they shared, making up for the lack of presence on the part of the family that most of them had, highlighting the human team that was part of the health

care of the patients. They were able to get to know each other's faults and virtues, improving relationships and tolerating each other. They describe that the pandemic serves to promote the union as a team and to work always in the same line.

At the beginning of the pandemic there were resources, sufficient to attend to patients, such as personal protective equipment, but as time went by they began to become scarce. Andreu and Mera confirm the shortage of personal protection elements in a period of the pandemic, because an accelerated production of these elements is generated.^{29,30} It is evident that pandemics and/or crises have their good side, because many things are improved, such as resources that they did not have before, arriving equipment and resources that in times without pandemic could not be had. Another aspect highlighted by this study is the need for new personnel, who were not trained and therefore had to work as they went along, which was considered chaotic, allowing for an improvement in the standard of patients per nurse. This situation occurred, as Andreu mentions, due to the lack of human resources, to mention a few: there was a lack of nurses due to the overload generated by the care of covid patients, which led to their retirement from work.²⁹ With the arrival of new personnel, training is necessary and the willingness to learn along the way, because it is difficult to take care of such complex patients and not know how to do it. More than having experience, it is important to be trained because this avoids mistakes, as happened when there were infections due to misuse of PPE. Another element of coping used by the health team, providing new evidence.

As mentioned by Tonello and Molina allude to the theory of environmental psychology^{31,32} that explains a coping mechanism for the pandemic is adaptation. This research points out that some of the health team feel pride because they feel part of the history of medicine, which shows their ability to adapt because not all of them dared, many people leave their functions. However, with respect to the coping mechanisms used at the country level, vaccination and the current coverage in the country were mentioned as one of the best strategies, compared with other countries. Some coping measures used in Chile were questioned, such as extended quarantines and curfews, which were interpreted by the informants as social control measures. There are hindering elements in the experiences, such as staff absenteeism and lack of material resources, as evidenced in a Spanish study,²⁹ pointing out that there were mainly new people working, because the old ones went, but only for a while. As for the internists, many of them disappeared, stating that it was unethical. Another hindering element is the burden of the old staff in terms of training new people, because they were people who arrived very poorly prepared and had to learn in a very short time. This generated stress, not only because of the new personnel, but also because they had to attend COVID-19 patients, resulting in a work overload. In addition, the health authority did not support them during the pandemic, offering benefits, which are still not effective. Finally, it is evident that the community was a difficult area to deal with, because there was a time when many people did not believe in what was happening. Observing the individualism of the people, as pointed out by the interviewees, because despite what was happening, people continued to go out, irresponsible and unaware, alluding mainly to young people.

Conclusion

Facing a global pandemic has a transcendental influence on life experiences, generating an impact on all aspects. After the arrival of COVID-19, facing it and trying to live with the virus, health personnel have attributed meaning to their role as a non-delegable responsibility. However, there have been residual physical, emotional, occupational

and family traces; memories that in some cases are indelible, such as physical exhaustion, professional burnout, job insecurity and depressive symptoms. The whole situation shows the need to intervene mainly on the psychological aspect, since the physical fatigue may pass, but the psychological impact may leave traces forever.

It is necessary to enhance resilience, personal growth, intra-family relationships and special attention to vulnerable groups in order to minimize the psychosocial impact of the pandemic on the population. It is essential to reinforce policies for the protection of the health and safety of healthcare personnel, sufficient personal protective equipment, rest areas and services for patients. In addition, it is essential to provide psychological care for the management of the loss process, the effects of anxiety, frustration, depression and any psychological consequences identified in health personnel. It is also necessary to provide continuing health education, both to in-hospital and out-of-hospital personnel, considering the strategies learned that were effective during the emergency period before the COVID-19 in order to reproduce and formalize these experiences in official documents and distribute them to the corresponding community. In view of this, it is necessary for nursing to be able to intervene and be present in stressful situations, with the aim of educating the population and intervening to avoid consequences. One of the disciplinary contributions of this research is the application of the Adaptation Model of Sister Callista Roy, showing that all the interviewees, in spite of their particular characteristics and corresponding to different strata, share similar forms of adaptation, coinciding in the opportunity to recognize the different stimuli, try to understand them, contrast them and finally expose them; in this way, in the future, the results obtained will be used in favor of adaptation. On the other hand, the behavior of the health team in the face of a pandemic is explained through environmental psychology, presenting the reactions that can be generated in the face of environmental stress, which were presented in the health team. Finally, it is necessary to mention that the findings of this study are not transferable to other contexts, since it explores the phenomenon from the perspective and particularities of nurses and other members of the health care team, who have shared their experiences through their memories and individual realities.

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None.

Conflicts of interest

The authors declare that they have no conflict of interest.

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