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From uncertainty to the experience of collective care: Immersion in a hospital COVID-19 unit during the 'first wave' of the epidemic in Marseille, France☆

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ABSTRACT

Social and psychological risks are weighed against biological risks and addressed by healthcare workers responding to health crises. This article examines the transformation of biosecurity protocols in one hospital in Marseille, France as the beginning of the COVID-19 pandemic and how they were adapted to meet changing needs. Based on ethnographic methods that included active observation alongside caregivers, nurses, and medical doctors during their professional activities, as well as interviews with healthcare professionals and administrators, we analyze some of the key strategies used by these staff to negotiate challenges related to the uncertainty provoked by the emerging virus and changing protocols. We examine the strategies of health professionals through the lens of 'collective care' and shared decision-making to show how collaborative work practices allowed these individuals to mitigate challenges provoked by the health crisis while supporting the needs of the individuals in their care. A key recommendation that emerges from this study is the importance of favoring the cognitive, relational, and organizational aspects of collective care.

1. Introduction

1.1. Background: the first wave of COVID-19 in France

At the end of January 2020, COVID-19 quarantine centers were created in Carry-le-Rouet, in the South of France to receive French returnees from Wuhan, China. This measure, as well as the closing of borders for people coming from high-risk areas, had the objective of preventing the introduction of the virus into the country (phase 1 of France's national response plan). In February 2020, additional restrictive measures (travel restrictions, suspension of public transport, restriction of large gatherings) were implemented in areas of France where COVID-19 clusters had been found, notably in the *Grand Est* region. The announced goal was to slow down the circulation of the virus (phase 2 of the national plan).

Faced with the rapid increase in the number of cases, the government finally called for a nationwide lockdown of the population on March 17, 2020 (which ended on May 10 of the same year). This radical measure (phase 3) was announced with the objective of avoiding saturation of hospital resuscitation services. The methods of protection (masks, gowns) and testing (equipment and reagents) were not accessible at that time to the entire population.

On March 13, 2020, the government activated an additional plan, the White Plan[1] on a national scale. This plan, in law since 2004, is reserved for extreme health emergencies and crisis situations. It can be applied to the implementation of emergency response programs and to allocate resources needed to manage the influx of victims in the event of a crisis (disaster, climatic event, epidemic, etc.).

☆ With the contribution of CoMeSCov team: Alfieri Chiara, Beauvieux Fleur, Egrot Marc, Kra Firmin, Magnani Carlotta, Mininel Francesca, Musso Sandrine († August 7, 2021), Sams Kelley.

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[1] Law n° 2004-806 of August 9, 2004: www.legifrance.gouv.fr/jorf/article_jo/JORFARTI000001264298.

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The European Hospital in Marseille (EHM) is a private, non-profit health care institution located in the poorest district of Marseille, and of the entire country[2] with a diverse patient population from different religions (Islam, Judaism, Christianity) and geographical origins, mainly from North and Sub-Saharan Africa. The hospital activated its White Plan on March 28, 2020. At the height of the first wave, the hospital cared for approximately 60 COVID-19 patients, including 26 in intensive care. By the end of May 2020 (the end of the first wave), a total of 300 people had been treated for COVID-19, including 27 who did not survive.

This project emerged as a result of the partnership created in an emergency situation between biomedical health professionals and researchers from different disciplines (anthropologists, historians, political scientists, physicians). In March 2020, we were invited by healthcare professionals from the EHM to conduct a qualitative study among healthcare workers at the hospital about their experiences with new biosecurity measures and the reorganization the hospital's services.

1.2. Research aims: studying caregivers' experiences through an hospital ethnography during the beginning of the epidemic in France

In this article, we describe the emergency measures put in place by the hospital's crisis committee, challenges encountered by caregivers[3] in the application of these changes, and the "practical norms" that emerged as shared deviations to cope with ethical, emotional, and virological risks. The concept of the practical norm, developed by Olivier de Sardan (2021), indicates a normative regime situated between official norms and the actual practices of individuals. These are patterns of behavior, not necessarily conscious but generalized, that are the subject of implicit agreement between social actors, and also between actors and the outside world: "behaviors that are found not to follow official norms are not simply erratic, non-conforming or random; they are regulated by other de facto norms, which need to be 'discovered'. This discovery is made all the more difficult by the fact that these practical norms are not necessarily conscious, nor explicitly known as such, by the actors themselves" (Olivier de Sardan 2001, 67). This "generalized deviation from the official norm" is often adaptive, and can bring about positive change, as highlighted by Spreitzer & Sonenshein's work on "positive deviance" (2010). The notion of practical norms also highlights the active role of social actors in its collective and not just individual dimension.

Recent literature describes the many difficulties encountered by caregivers facing changes in health care facility measures that occurred during the COVID-19 pandemic. Frequently changing protocols were found to generate confusion, anxiety and mistrust among caregivers (Chabrol et al., 2023; Tort-Nasarre et al., 2021; Cecilia & Lot, 2022); the ban on end-of-life visits led to ethical dilemmas and a sense of injustice raised by caregivers (Chabrol et al., 2023; Kra et al., 2020; Tort-Nasarre et al., 2021); instructions were often perceived as top-down and not based on the reality on the ground.

Previous research generally shows that frontline caregivers in hospitals during the first period of the COVID-19 health crisis ("first wave") worked under anxiety-provoking and stressful conditions, leading to feelings of fear: fear of transmitting the virus to family, fear of being perceived as potential vectors of the disease, and anxiety about the moral dilemmas involved in strictly following instructions (Digby et al., 2021; Lai et al., 2020; Pappa et al., 2020; Shanafelt, Ripp, et Trockel, 2020; Tessier, 2020; Wallace et al., 2020; Zaka et al., 2020; Chabrol et al., 2023; Tort-Nasarre et al., 2021; Harkouk et al., 2022). Fear (of being infected and of infecting others) is a feeling that accompanies all epidemics and affects healthcare workers in particular (Desclaux et al., 2018; Hofman et Au, 2017; Sow et Desclaux, 2016).

However, several scholars identify collaboration between different profiles of healthcare professionals (caregivers and physicians and between different medical specialties) that enable caregivers to cope with difficulties (Chabrol et al., 2023; Harkouk et al., 2022; The COVID19-APHP Group, 2020; Foucrier et al., 2020; Forster et al., 2020; Bergeron, Borraz, et Castel, 2021; Bloy et Sarradon-Eck, 2022). Chabrol et al. (2023) examine the COVID-19 crisis response of the Bichat Claude-Bernard Hospital in Paris during the beginning of the pandemic and show how working in COVID-19 units led to a more collective approach between caregivers themselves as well as in their relationship with patients' families. Caregivers interviewed for this study described the beginning of this health crisis as leading to extraordinary rallying between teams and strengthening professional solidarity.

Another qualitative study conducted in a Paris-area hospital (Harkouk et al., 2022) provides a sociological analysis of the adaptations implemented in the hospital's the anesthesia department at the beginning of the pandemic. This research shows that the department's professionals were able to meet the challenges due to the exceptional collaboration of professionals and crisis management based on the principle of subsidiarity. Health professionals expressed feelings of stress and fatigue, while also testifying "an unusual degree of solidarity and cooperation within the hospital" (Harkouk et al., 2022, p. 2).

The qualitative research of Fournier and Clerc (2021) on the reconfigurations of healthcare during the first wave of COVID-19 in six territories of metropolitan France shows that the crisis also induced changes among socio-medical staff that were perceived as positive: more horizontal and collaborative relationships between professional categories, the possibility of developing new skills, a change in the way professionals look at the jobs of their colleagues, and the discovery of several professional or institutional cultures. In a similar perspective, a research shows the emergence of "new forms of cooperation and virtuous improvisations, in places traditionally crossed by numerous conflicts and marked by complex situations of competition" (Bergeron, Borraz, et Castel, 2021, p. 2).

An analysis of a hospital in the UK during COVID-19 also highlights the importance of collaborative working and professional recognition in managing changes in the organization of space and work during the onset of the health crisis (Montgomery et al., 2021). Research focused on anesthesiology departments in France during the first wave of the pandemic found similar negotiations, describing, "numerous coping strategies, relying on a strong team spirit and a reinforced sense of duty." (Guessoum et al., 2022, p. 1). The social aspects of building trust in the provision of medical care have also been highlighted by researchers in other epidemic situation, especially in Ebola Treatment Centers during the West African epidemic (Sams et al., 2020).

The notion of "resilience" has been mobilized as an analytical framework to describe the capacity to absorb a shock and bounce back to a previous form (Cecilia & Lot, 2022; Ridde et al., 2021; Haldane et al., 2021; Hynes et al., 2020). However, this approach has also been criticized as "an intellectual trap that prevents us from addressing the pressing issues of social vulnerability and structural inequalities" (Chabrol & et Pierre-Marie, 2023, 4).

In this paper we engage the concept of collective care to untangle the interactive processes involved in the shared construction of meaning for action, the development of mutual aid capacities and margins for action and innovation 'from below' that are not subject to pre-established norms. (Beaucourt & Louart, 2011, p. 114) define collective care as "an interactive process in context" with "cognitive (a collective construction of meaning for action), relational (socio-affective adjustments, mutual aid and interpersonal regulation capacities) and managerial (room for maneuver offered to local initiatives, without enslaving them to pre-established norms or depersonalized technical instrumentation)

[2] https://www.inegalites.fr/Les-communes-les-plus-touchees-par-la-pauvrete-2086.

[3] We have chosen to use the term 'caregivers' in this article instead of healthcare workers to emphasize the human aspects of care beyond the biomedical realm. This word is translated from the French term *soignants* that may be broadly applied to anyone providing care ('*soigner*') to those in need.

impacts". The two notions (collective care and resilience) are not opposed, but the concept of collective care is less connoted from a political-institutional point of view and refers more to a notion of relational responsibility nurtured by the collective, horizontal construction of "meaning" than to the individual, almost Darwinian capacity to bounce back from trauma (Ionescu & Jourdan-Ionescu, 2010).

The ethnographic findings that we present in this paper come from a field conducted in a hospital COVID-19 department at the very beginning of the pandemic examining the difficulties and strategies adopted by caregivers to cope with the challenges (ethical, professional, safety in the face of virological risk) faced in applying changing instructions, examined through the theoretical framework of collective care.

2. Material and methods

2.1. Data collection and analysis

The data analyzed here was collected during fieldwork that occurred as a part of the "Containment and health measures to limit the transmission of COVID 19: Social experiences in times of pandemic in France, Italy and the USA."[4] (CoMeSCoV) research program. This multi-sited research focused on the reception, interpretation, negotiation, and consequences of health measures for different categories of social actors: health workers in hospitals, professionals working with marginalized populations, and workers involved in mortuary care.

Our analysis is based on three months of fieldwork at the EHM of Marseille from March 30 to June 15, 2020 in three hospital departments: the COVID-19 unit, the emergency room and the intensive care unit. This was an ethnographic study-the first author lived the experience of the first COVID-19 wave alongside hospital staff, accompanying nurses and orderlies in the rooms of people infected with COVID-19, and strictly following new biosafety protocol, including the "after work" isolation that was required and its social consequences. We did not systematically observe doctors' activities: so as not to hinder medical activity, the COVID-19 sector management authorized us to visit departments in the late morning or afternoon, when medical visits were over. However, we were able to observe consultations in the caregivers' screening center, set up to triage professionals entitled to testing during the period when screening equipment was in short supply. According to informal feedback from the ethics committee meeting with reflection on the first wave, the anthropologist's presence on the ward was perceived as a form of support. Caregivers appreciated the presence of a third party to whom they could confide and share their experiences.

We took part in eight meetings of the hospital's crisis committee and documented discussions concerning the measures to be adopted within the hospital. We also participated in the final meeting of the ethics committee at the end of the pandemic's "first wave" in France. In addition, we helped establish a funeral rites unit made up of members of the COVID-19 mobile palliative care team and the person in charge of the repository which involved seven meetings. This united reflected upstream on the process of integrating sociocultural or religious end-of-life practices with a view to promoting dignified deaths (Kra et al., 2020). Forty respondents (doctors, nurses and care assistants) were interviewed individually and/or listened to during meetings of the COVID-19 crisis unit and the funeral rites unit. The interviews focused on how new measures that emerged from the administrative 'White Plan' response to the health emergency were received.

The hospital's conversion, which began on March 28, 2020, following the activation of the regional White Plan, was documented (bioprotection protocols were archived, internal webinars recorded, and images taken of the COVID-19 and non-COVID-19 care circuits).

Interviews, observations and field journal were transcribed and imported into NVivo® to characterize the sources and respondents, sort data by theme, and carry out a content analysis. A collective work of reflection around the coding was carried out in team[5] during eight months, work which allowed us to organize, archive and analyze the collected data.

2.2. Ethical considerations

This study received ethical approval from the Institute of Research for Development's (IRD) Consultative Ethical Committee for Research in Partnership during the June 25, 2020 session. Informed consent was obtained from participants in writing or orally and all data collected were pseudonymized and stored securely in accordance with CNIL (French Data Protection Act) guidelines. A data management plan was filed on June 16, 2020 on the Opidor website (https://dmp.opidor.fr/plans/6519/download). It is open access, was translated to AMR within three months of funding, and details security precautions and data storage. A research collaboration contract was signed on June 30, 2020 between the IRD and the EHM in order to specify the conditions of the research within the hospital. We did not collect data from patients for ethical reasons (difficulty to obtain informed consent) and based on agreements made with the hospital administration (the agreement with the hospital did not allow us to access or collect health data of hospitalized persons). The data collected concerned exclusively the professionals working in the hospital. The researcher who conducted the fieldwork had previously received training in biosafety protective equipment for the duration of the survey.

3. Results: reorganization and challenges

3.1. The reorganization of hospital services and care activities at the EHM

The first case of COVID-19 was detected in Marseille on March 3, 2020, as infections were spreading rapidly in Italy and the East of France. The EHM's professionals in charge of biosafety faced a situation where the recommendations coming from international, national and regional health agencies were all based on partial and rapidly evolving virological knowledge. They had to face the challenges related to the need of biosafety equipment and human resources. In a time of scientific (rapidly evolving virological knowledge), epistemological (credibility of scientific discourse) and operational (changes in instructions) uncertainty, hospital caregivers found themselves in a situation that challenged both their relationship to science and the ethical foundations of care practices. The first revised biosafety protocol the hospital was created[6] during the last weekend of February through a 'patchwork' of knowledge of Ebola virology and the first recommendations on COVID-19. No ready-to-use protocols for hospital care for COVID-19 were provided by national health authorities.

During the first wave, there were still many unknowns surrounding the dangerousness of the virus, particularly about the risk of death in the

[4] The CoMeSCov project was funded by the ANR (ANR-20-COVI-0083-01), REACTing, and the IRD (a two-year postdoctoral grant for the first author of this article, from April 2020 to April 2022). It was linked with the Population Environment and Development Laboratory. It was coordinated by Marc Egrot from the Population Environment Development Laboratory/LPED (Research Institute for Development – Aix-Marseille University) and Sandrine Musso from the Norbert Elias Center/CNE (AMU-CBRS- EHESS-Univ Avignon). It was integrated into the research activities of the Anthropology of Emerging Epidemics Network (www.raee.fr).

[5] Co-coordination scientifique: Marc Egrot (Laboratoire Population Environnement Santé/IRD – Marseille) et Sandrine Musso (Centre Norbert Elias/AMU – Marseille). Équipe de recherche: Alfieri Chiara (LPED/IRD – Marseille); Beauvieux Fleur (LPED/IRD – Marseille); Kra Firmin (Université Alassane Ouattara – Bouaké); Magnani Carlotta (CNE/EHESS/IRD – Marseille); Mininel Francesca (LPED/IRD – Marseille); Sams Kelly (LPED/IRD – Marseille).

[6] By the health nurses and infectious disease physicians of the HEM.

event of infection.[7] Infectious disease nurses and hospital authorities of the EHM produced ten different COVID-19 protocols in the first three months. They were all distributed as paper information sheets to staff, posted on the doors of examination rooms and displayed on walls of the hospital.

The emergency department became a COVID-19 -only department. Non-COVID-19 emergencies were moved to the internal medicine department, even though it was not very suitable in terms of space and equipment, with small hallways, doors that made the passage of stretchers difficult, and a lack of monitoring equipment. The care team was divided into two parts, each with a different biosafety protocol. It remained this way for almost four months. The emergency department stopped operating in these two separate spaces after June 2020.

The intensive care units, which had increased their capacity through adding to the usual number of beds, quickly found themselves at full capacity, with infected people arriving both from the emergency room and being brought in by ambulance from other hospitals in the region. During the peak of infection (April 2020), the intensive care unit almost exclusively contained people with severe forms of COVID-19.

The first COVID-19 hospitalization unit of the hospital was located on the second floor and operated by a medical team composed of rotating specialists from different backgrounds. These doctors – as they said during a crisis management meeting - were 'obliged to relearn' certain professional practices but did so in an atmosphere of 'collegiality' and 'with a smile'. Caregivers and were only allowed to enter the rooms a maximum of three times a day. Family visits were strictly forbidden throughout the whole hospital at this time and only allowed under medical exemption for end-of-life visits.

During the month of May 2020, as hospitalizations began to decline, the COVID-19 crisis department considered converting certain spaces back into non-COVID-19 services. However, the overall context of uncertainty and the perceived inobservance of lockdowns seen in the city fueled fears of an upcoming second wave among members of the crisis unit as well as among caregivers. Testing capacity remained limited at this time since there were shortages in testing materials. Hospital caregivers were not able to be tested for COVID-19 except in very specific situations, such as after 'close' contact with a person who had been confirmed positive (without protective gear, for example during a meal).

The official end of the first national lockdown on May 11, 2020 also meant the reopening of hospital consultations, an act that was perceived by some caregivers as a potential source of infection. The teams of emergency staff were reunited. Surgical operations resumed with an overload of work and the intensive care unit increased its non-COVID-19 capacities at this time.

As shown in other research (Chabrol et al., 2023; Chabrol et David, 2023; Harkouk et al., 2022), the end of the first containment period and the reopening of conventional services marked a turning point: the resumption of managerial control of the hospital organization, the exhaustion of caregivers, a less horizontal way of working and the erosion of the "collective care" that had enabled the hospital structure to cope with the first wave.

3.2. Difficulties encountered by caregivers in the reception of biosafety guidelines

3.2.1. The cognitive load of protocols and their impact on communication and safety

Protocols for dressing and undressing changed over time and in different areas. In the COVID-19 unit, they were frequently different for each type of space-hallway, nursing room, restroom, patient room etc. The protocol to be followed when providing care to an infected person was posted in front of each room. It described the order of actions to be performed and the protective devices to be put in place when entering and leaving the room: gown, apron, two pairs of gloves, cap, visor/glasses, FFP2 mask and surgical mask, overshoes [Fig. 1] (see Fig. 2).

This biosafety protocol was perceived by many professionals who we interviewed as complicated, destabilizing and anxiety-provoking. Following it correctly required remembering a precise order that changed according to the different spaces and whose logic was not always understood. This cognitive load was seen by care givers interviewed to affect both the ability to protect oneself effectively and the relationship with patients, particularly when it came to communication. Lune, a nurse in the COVID-19 unit, behind her visor and her two masks, described,

> *In the COVID unit, in each different room you have to get dressed, it takes time, energy, it's psychological, more than physical energy, because we think about everything, we know that if we forget something, we are the ones who will be harmed in fact. Getting dressed is really a protection for us. If I forget something I'll get infected, and behind it there is my family.*

This effort, defined by some as "psychological gymnastics", was considered by caregivers interviewed an obstacle to the exercise of the profession and in particular to its communication aspects as well as the relationship between caregivers and those seeking care. A nurse at the screening center, Fatima, echoed this experience,

> *We are so focused on our tasks, the protocols are not easy to remember, so we forget the basics of human exchange. Being a caregiver it's sometimes out of vocation, and when it's out of vocation, the person is communicative, but they are in a situation where they have to remember so many things! Plus, the anxiety of thinking 'if I do this, then', you forget the basics of communication.*

The 'astronaut' outfit (gown, robe, apron, visor, cap, FFP2 mask, gloves, overshoes) was often considered by the caregivers interviewed as depersonalizing, dehumanizing and an element that compromised their professional identity by reducing the communication inherent in the care relationship. Protective equipment challenged the symbolic grammar of social relations. Rituals of "engagement" through non-verbal communication (facial expressions, physical touch) were strongly impacted. At the same time, strategies of "other engagement", avoidance and distancing gained ground (Goffman, 1982; Lardellier, 2021; Romania, 2020). Arnaud, an intensive care nurse described,

> *Being in a 'COVID suit' severed the connection. You wake up from a long sleep, you open your eyes and there are astronauts in your room, with the masks, the glasses, the communication is only with the eyes. They look for facial communication, but they don't know if I am laughing. Even if I am expressive, I have the visor, there are a lot of barriers.*

The ethnographic work also enabled the researcher to investigate this cognitive load:

> *The room is divided into two parts ("dirty" and "clean") by the doctor's office, which constitutes a kind of "border", a "neutral" space, an "outpost" in the fight against contamination. I'm sitting next to the doctor, I can't do anything, my recorder is in a freezer bag. I'm in an appalling state of heat, suffocating under layers of protective gear (gown, sterile gloves with long sleeves, over gown, 2nd pair of gloves, sleeves covering my arms, visor, FFP2 mask, hood), lacking air (it's forbidden to open the windows and doors, as the room is under "negative pressure"). I can't take notes, I can't record, I can't take photos. In fact, I'm just trying in my head to remember the gestures of the protocol. I'd like to follow the patients into the sampling room, but I can't because I'd have to 'change' to cross the corridor, remove all the equipment, put it back on again, and waste material.*

The changes in instructions and the number of movements that needed to be remembered in order to protect oneself and one's loved ones were thus perceived by health workers interviewed as an obstacle to communication and to the construction of the care relationship and, more generally, as an obstacle to the exercise of the caregiving profession, which was seen to require a physical and relational proximity that

[7] For governance of data during the pandemic see Gastineau et al., 2022.

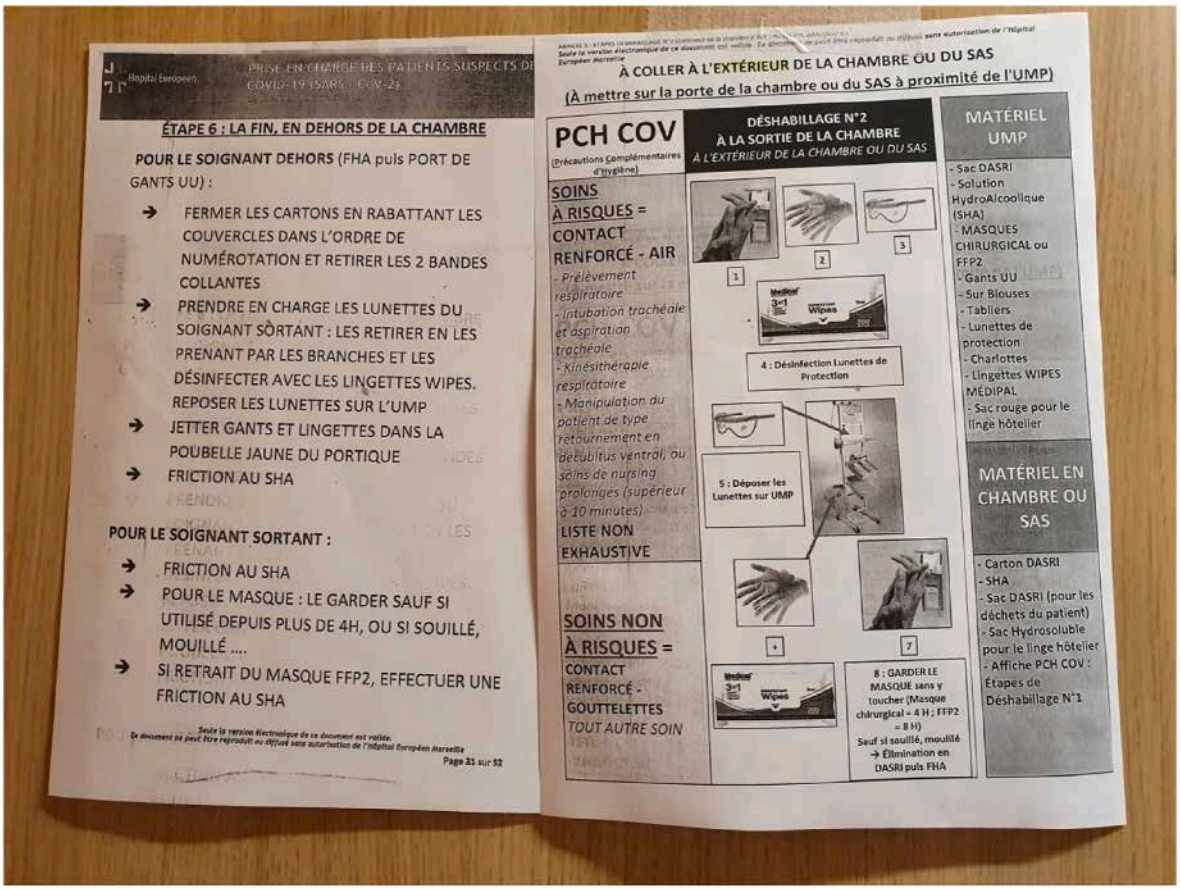

Fig. 1. Protocol (March 2020).

was not always possible in the normative context of the crisis.

3.2.2. Taking care of isolated patients: balancing empathy and fear of infection

People hospitalized in the COVID-19 unit were not allowed to receive visitors or keep personal belongings in their rooms (even cell phones were not allowed, except if the person had them at the time of their initial hospitalization). They were also forbidden from opening the door or going out onto the corridors of the ward. Caregivers interviewed described these individuals as expressing feeling "anxious", augmented by a lack of reliable information on the evolution of their condition as well as on the virus, and many wanted to leave the hospital, against medical advice. Caregivers interviewed shared feeling overwhelmed-torn between feelings of empathy and fear of infection. The first author of this article felt similar emotions while conducting fieldwork, as she described in her notes,

> *A patient tries to leave the room, without a mask, without any kind of protection. looking disoriented, lost. In the corridor the staff intervenes with service carts, they try to stop him by blocking the passage: the barricades. The man screams, the nurses behind the mask and the different layers of their "cosmonaut outfit", like martians, stay behind the "red" line, ordering the person to go back to his room. He doesn't want to, he pushes with his bare arms on the carts with much agitation, until, finally, a nurse approaches and gives him a shot to put him to sleep. I observe, behind the barricades, nobody knows what to do, knows what is right, what is due, but it is time to suspend all judgment.*

Caregivers told us that isolated patients facing mental or addition issues expressed feeling particularly "confused" and caregivers found it "challenging" to deal with situations that were not addressed in the protocols. Amandine, a nurse in the COVID-19 unit explained,

> *Isolated patients, especially smokers, had a hard time. They did not have their belongings […] no cigarettes, no right to go out, no right to open the window, alone with a bed in the empty room. From one day to the next, the patients found themselves cut off from the world, from a way of life. There were some outbursts, Covid positive patients who wanted to go out against the doctor's advice. We had to try to convince them or get them what they wanted, because they were a risk for the people close to them and for the people on the street.*

Some patients did not understand their diagnosis nor the reasons for their isolation. Language barriers was aggravated by the absence of families, who would usually translate or help explain instructions. According to interviews, the limited understanding of both French and medical terms (notably the term 'Covid-19', which replaced the more popular "corona") affected the perception of risk for hospitalized patients. These misunderstandings also led to tension between caregivers and patients. Suad, a nurse, described:

> *I had a patient who didn't speak French at all, he was a retiree, poor guy. He collapsed outside, he was brought to the emergency room, they tested him, and he was positive for Covid, so they put him in the Covid ward. When I went into his room, I start talking in French, he didn't understand. Then I spoke in Arabic, and he understood. I explained to him that he has 'corona' and this almost gave him a heart attack! I was really afraid for him. I had many patients who did not know what they had.*

The researcher also had to deal with ethically difficult situations in which virological risk had to be balanced against psychological risk:

> *I'm in the "covid" on the 2nd floor, with some caregivers who have to move a patient from one area to another: the little "stroll" of a few meters seems to cheer up our patient, who hasn't been out of her room for weeks. Once the patient has settled into the "new" room, we leave the door open for a*

Fig. 2. Anthropologist in the field.

few minutes, so that we can carry things in without touching the handles several times. The patient looks out into the corridor, smiling. When we've finished, I'm about to close the door, as I'm the last to leave, but she begs me: "Please, for God's sake, if you have pity on me, leave the door open! I'm suffocating! I want to see people go by." I say, "I'm sorry, it's not possible". She starts crying: "We're dying without being able to open the window, without even being able to see the people in the corridor! If you have any pity, leave the door open".

The isolation of sick people in their rooms is an excellent illustration of the difficulty of implementing and enforcing protocols that are not built "from the ground up", taking into account the reality of the field. The instructions did not always consider "out of protocol" situations with which caregivers were sometimes confronted with on a daily basis: behavior of people who felt isolated and distressed, especially the elderly, demented, or addicted – situations that required an adaptation of the instructions. Health workers felt "caught" between strict compliance with instructions and respect for ethical imperatives.

3.2.3. Ethical concerns for providing end-of-life

At the beginning of the pandemic, biosecurity standards forbid all visits including those at the end of life. Related to post-mortem practices, washing the body (except for a quickly with wipes soaked in disinfectant) and embalming were also forbidden, as were any other rites that involved contact with the body (Egrot, Akindès, & Kra, 2022). These rules were gradually relaxed as the pandemic continued in the COVID-19 unit. In May 2020, end of life visits began to be allowed with strict rules-only one person at a time, who must be either a close relative or religious representative, and for less than 2 h. Viewing the body was allowed in the mortuary room with up to three people during this time, but those in attendance were required to keep 1 m distance. These norms were implemented during this time for all cases of death in the hospital, both related to COVID-19 and to other causes.[8]

Given the socio-cultural characteristics of the area in which the hospital is located, part of its patient base was made up of migrant workers with families in their countries of origin. This brought a heavy psychological and emotional burden for caregivers, who were unable to reach/inform relatives, as well as for end-of-life management (if the patient was not conscious, it was sometimes difficult to gather information about his or her spiritual wishes regarding end-of-life) and post-mortem (some countries did not allow bodies to enter during the first wave of COVID-19).

These norms were particularly difficult to manage for caregivers interviewed who were most often the only ones that dying people could see before they died, although this feeling of distress and injustice was mitigated by the fear of contamination. These difficulties were also described during meetings of the funeral rites unit and the ethics committee.

Julie, a psychologist, described the difficulties caused by a lack of protocol concerning sedation at the beginning of the pandemic.,

The most difficult thing was to welcome many elderly people alone in the intensive care unit […] agitated, completely lost, hyper-anxious. We were surprised by the rapidity of the deterioration of the patients, that in less than 24 hours we went from 'we will give him all his chances in the service' to 'well, it is the end of life'. I said to myself: 'We can't let these people die alone!'. They were tied up, these people were so agitated that they were restrained, for me it was horrible. I tried to spend time with them but at the same time I experienced such helplessness.

Sélène, a nursing aid described:

We had a lot of deaths, what is difficult is that people died alone, we are not used to that, especially with the population we have here, usually it's the whole family that comes, and here people were all alone. We had a gentleman who passed away, the daughter called every day asking how he was. Is he sleeping? Is he in pain? She knew he was going to die, she wanted to see how her daddy was before he passed away. It's complicated, and for us too, because we are the last people they see when we didn't even know them 24 hours before.

The main difficulties were those due to the change and complexity of the instructions, and the depersonalization induced by the 'astronaut' outfit, both of which also had an impact on the communication, the construction of a care relationship and empathy capacities. In addition, instructions did not take into account 'out of protocol' situations such as addictions, cognitive or social issues, which added to already anxiety-provoking situations for people who were medically isolated (solitude, uncertainty about the virus and the evolution of the disease). However, the most important difficulty was the management of the end of life and post-mortem care (prohibition of visits, prohibition of spending time with dying persons, prohibition of care practices and mortuary rites).

4. Results: adaptations and care

4.1. Adaptive practical norms

Caregivers dealt with these difficulties by adapting their practices, adjusting protocols to real and often complex situations, and dealing with various imperatives (ethical, religious, professional, health-related – related to the perception of risk). The feeling of cohesion, to have a collective mission, to take care of one another other, the sharing of decisions and risks, and the mutual aid made it possible to feel part of a community welded together by the COVID-19 experience and to manage the anguish of choice and uncertainty. "The only way to deal with these problems is to share decisions and not to drift alone", explained one

[8] It was not possible to determine the infection-status of deceased people.

doctor working in the COVID-19 unit. The "ritual gymnastic" (the set of gestures to be performed, the order in which these gestures were to be performed, the protective objects) sanctioned the membership to the COVID-19 'community', working in a space considered dangerous, strictly isolated, separated by material and symbolic signs (posters, arrows, danger markers) from the other hospital services, governed by its own norms, as well as a new identity in which forms of collective care were experienced.

4.1.1. Communication strategies

One strategy was to mitigate the effect of the barrier created by personal protective equipment (PPE) by reinforcing other forms of communication (voice, gaze). Julie, a psychologist, explained that she tried to be more expressive and that she continued to sit on the beds of those she was supporting because this physical proximity was important for her work,

> *I am usually very expressive in my face, and I give non-verbal encouragement. That is difficult to do with a mask. Now I really try to show my expression through my mask: I am sure that you can see that you can feel a smile under a mask. I have acquired even more facial expression than before. In terms of my speech, I have also added things in my words to encourage and reassure.*

Introducing yourself to the individuals seeking care was also considered a very important step mitigate the negative consequences of bioprotection measures. Fatima, a nurse at the COVID-19 screening center, who herself experienced a severe COVID-19 infection that required hospitalization explained,

> *The fact that I was in the "patient's shoes", it totally changed everything. When I left the hospital, I was sending messages to my colleagues saying, 'We don't usually introduce ourselves to patients all the time, but when we're on the other side we realize that we don't feel well if we don't know who's coming into our room, we have to explain our role and the acts we're going to perform. It can be very reassuring.*

Aurélie, a palliative care physician who joined the COVID-19 team, said with a smile, "It made me think about how to accompany a patient who was fine 24 h before and who is going to die, and how to accompany him when he only sees my gaze". She pointed to some massage oil on her desk and continued,

> *I always keep this oil as a souvenir of this COVID patient who was demented and dying. I said to myself: I will massage her hands with the gloves, so much the worse, to see what happens. Normally it is not the doctor but the nurse who does the massages, but I wanted to do it myself. I find that this crisis speaks of our creativity, of being able to adapt to difficult situations. Massaging with gloves, you could say that it doesn't make sense, but it did. And that's what It taught me, that there's always a possibility, even if you think there are obstacles.*

4.1.2. Managing patients' isolation and end-of-life care

Bringing in outside objects such as tobacco or coffee, especially in the case of addiction was also one of the strategies adopted by healthcare workers interviewed to assure the well-being of infected individuals. Lea, a caregiver in the COVID-19 unit explained,

> *There was one patient who went out into the hall. So we tried to explain that he was not allowed, but he didn't understand. We put restraints on him but he managed to take them off. The room was in front of the stairs: he took the stairs and went into the cardiology and pneumology departments. Finally, we found out that the gentleman wanted chewing tobacco. We brought it to him, and he calmed down […]. There are small things like this that improve the care that give.*

The compassionate administration of hydroxychloroquine[9] also became part of the care process, because many "isolated" people wanted to go out in order to reach other hospitals and have hydroxychloroquine treatment. A physician told us,

> *At the beginning, we had tensions with patients who were getting angry because they really wanted treatment with hydroxychloroquine. At the beginning we said no. And then it changed, for a patient who was not at risk of adverse cardiac effects, it was counterproductive to refuse hydroxychloroquine, because it was stressful, we were going against medical advice. This is what is called compassionate therapy.*

In some situations, following the rules that prohibited cleaning bodies after death was religiously and morally unacceptable according to certain healthcare workers interviewed. Aisha, a nurse in the COVID-19 unit explained,

> *We had a difficult death, the man emptied himself completely, there were stools, gastric contents, it's hyper contagious, we know it! Normally we wipe of the bottom and on the top, then we put the body in the bag. I was holding his head while the other caregivers were cleaning, but I could see in his mouth that the level was rising, it was going to overflow. We were left with only one solution, to suck it out. But the gastric stuff is hyper infectious, we should not do aspiration! But how could we not?*

Some healthcare workers interviewed privileged providing care over personal protection and exposed themselves to the risk of infection in order to respond to an emergency. Suad, a nurse explained,

> *When we are in the infirmary, sometimes we take off the mask to breathe a little, and if we have an emergency, we get up and run. It happened to me, it has happened to us, we all get up, we run, without a mask (…). The "patient" fell, we could not leave her on the ground, we decided not to leave him, and during the emergency we only thought about her life rather than our own.*

The coping strategies adopted to overcome the difficulties were individual: giving more importance to verbal and visual communication (accentuation of the gaze and attention to the tone of voice, to the words used); maintaining physical contact despite the barrier constituted by PPE (massages with gloves); always introducing themselves to the hospitalized persons (with first name, surname, function, and by explaining the acts that are going to be performed). They were also collective: sharing the decision-making to adapt the instructions or to expose oneself to risk ("*we* decided not to leave him"); giving "compassionate treatment", i.e. administration of hydroxychloroquine if requested by the patient (if side effects were not expected); bringing in objects from outside in case of addiction, carrying out post-mortem care certain cases. It seems appropriate to use the concept of "practical norm" (Herdt, OLIVIER, & éd, 2015) here to describe the deviation from a norm shared by actors: shared decision-making to reduce risks and deviate from the hospital norms eased the moral burden on caregivers and appears to be a particularly important element of collective care strengthening the links between the different professionals.

4.2. Co-construction and collaboration

Social science research on medical professionals, particularly in the hospital environment, shows a hierarchy of roles between professionals (doctors, nurses, orderlies) as well as between different medical specialties (Peneff 1992; Vega 2010; Freidson, 1970). In our research we

[9] The "Institut hospitalo-universitaire en maladies infectieuses de Marseille » (IHU Méditerranée Infection) was a leading advocate for this drug (Lutaud, Scronias, et al., 2021; Lutaud, Ward, et al., 2021).

observed a softening of hierarchies in decision-making, roles and tasks, as well as a valorization of certain categories of professionals such as emergency physicians and nurses mobilized “on the front line".

The results of this research show that adapting recommendations and even transgressing norms can led to concern, and even fear, among healthcare workers, especially when deploying unusual professional practices imposed by health measures taken in response to epidemics. However, these feelings were strongly mitigated if the deviation from the norm (adaptations) was shared by many and navigated in a collective and collaborative manner. Cohesion, more horizontal relationships between professional categories, listening to each other, and caring for hospitalized persons and colleagues in formal and informal ways were seen as integral to providing good care. This new way of working was fueled by questioning codified practices and professional relationships in a context of crisis and uncertainty. Aurélie, a palliative care physician described,

> *I find it very enriching, it's strange to say that, but for me it was a breath of fresh air in my professional activity. It brought me a lot of ethical reflection; it took me out of my comfort zone. There were whole days that I spent in the COVID units, and I found that this allowed for a better bond between the nurses and doctors. Whereas normally we have something that is much more individual, much less collective.*

Manon, a palliative care nurse shared,

> *I knew all the nurses, all the caregivers, I had more contact with the doctors, I was an actor in what was happening in this health crisis, I felt useful in my work, there was a lot of meaning in what I was doing, and [when I was told to go back to the department, I replied]: 'Well no, I would like to continue in the COVID unit!' Being in this little family where there is benevolence towards everyone, we stick together, there was a good atmosphere. I found my place and I liked that place.*

Sharing feelings and discussing best practices was fundamental to managing ethical stress especially when it came to making decisions about the end of life and the socio-cultural needs of patients. This allowed, for example, to collectively decide upon strategies to bypass restrictions related to end-of-life care, while maintaining other restrictions. Julie, a psychologist described,

> *We agreed very quickly that we would allow a visitor during a patient's terminal phase, so that the family could see their dying loved one. […] if you don't see someone pass away, you can't believe it, you need someone who can testify that yes, it's true. We had this thought, and as a result, we were able to get derogations quickly. It was very reassuring to say to ourselves: none of us felt that we had to stick to this rule'.*

A feeling of cohesion emerged, related to belonging to a new community that was simultaneously stigmatized and valued while also allowing for the possibility of adaptations and innovations in the management of the health crisis, while equally creating difficulty returning to a non-crisis phase. There were divisions and fractures between those working in the COVID-19 unit and professionals working in other sectors of the hospital when these health workers were reintegrated into conventional services.

5. Conclusion

Faced with uncertainty related to a new epidemiological threat, health professionals responsible for biosecurity in health facilities in France experienced the ethical dilemma of weighing the need for protection against infection with the need for humanized emotional and psychological care to avoid negative psychosocial effects - guilt, lack of communication, a feeling of not providing the care that they were trained to provide (R. Pougnet et al., 2022). Care givers expressed mixed feelings related to measuring this fear of becoming infected or spreading infection and a desire to respect what was perceived as a moral, professional, and civil obligation. In particular, professionals reported that the cognitive load involved in managing protocol changes and retaining information to protect themselves and others was a source of anxiety and affected the care relationship (especially communication with patients). Protective equipment (“astronaut” gear) had an impact on “engament and communication rituals”, and was seen as depersonalizing and compromising professional identity. Isolation, particularly at the end of life for elderly or mentally impaired patients, or those with social problems, addiction or language barriers, was a source of ethical dilemmas and a shared sense of injustice.

Our research findings showed that nurses and caregivers who were involved in the ‘first wave’ of COVID-19 learned how to adapt these recommendations and develop “practical norms” by weighing different types of risks (biological, social, moral): these practical standards (Olivier de Sardan, 2021) deserve to be described and analyzed at a later date to adapt and guide recommendations, and can provide a guide for action in an emergency context.

Several key coping strategies that can feed into recommendations for future work during a health crisis emerge from the results of this research: the importance of collaborative work, the importance of making collective choices, take into account patients' social identities and level of health literacy when communicating instructions, recognition of the efforts of health workers. In addition, two-way dialogue between healthcare providers and hospital administrators about changing protocols and their adaptation was another important communication strategy.

The work and professional expertise of healthcare providers is not always recognized in the changing dialogue about providing care during the COVID-19 pandemic. As protocols were developed and transformed during the initial first wave of the pandemic at the EHM, the experience and perspective of nurses and others providing patient care became more visible in these recommendations. While the situation described here occurred within a particular national context, similar concerns were faced in other countries affected by the pandemic (Sams et al., 2021). A key recommendation that emerges from this study is the importance of considering ethical and emotional risks as biosecurity protocols are developed and communicated to healthcare providers.

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