



ORIGINAL ARTICLE

'A picture is worth a thousand words'—A photovoice study exploring health professionals' experiences during the COVID-19 pandemic

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Abstract

Aim: To elicit the experiences and perspectives of health professionals working on the frontline in the COVID-19 pandemic.

Background: Although some qualitative studies have been carried out in health professionals during COVID-19 pandemic, to our knowledge, no study has used the Photovoice method.

Design: A qualitative descriptive study using Photovoice was carried out between March and June 2020.

Methods: A total of 20 health professionals were recruited from public and private healthcare services. The participants were invited to share photographs about their experiences while working during COVID-19 pandemic. Following the Photovoice method, audio-recorded interviews were conducted. The data were analysed using the 'SHOWED' mnemonic, with five questions answered about each photograph. The EQUATOR checklist has been used.

Results/Findings: Three themes emerged: (1) Personal attitudes of health professionals; (2) Support from the community; and (3) Management of institutional resources. Despite the fact that health professionals in this study were exposed to major risks while caring for patients with COVID-19 they felt a strong sense of responsibility towards the community. In order to handle these stressful situations, they used coping mechanisms, good humour and leisure, but also received support from the population, who saw them as highly skilled health professionals.

Conclusion: These findings highlight the essential role of health professionals in the COVID-19 pandemic and the tireless work they are carrying out to provide highly skilled care.

Relevance to clinical practice: These findings could contribute to raise awareness on the needs of health professionals during the pandemic, allowing managers to plan strategies to ensure the safety, and well-being of these professionals, as well as

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adopting similar strategies in their practice to create a space for critical reflection through participatory approaches.

KEYWORDS

art of nursing, community-based interventions, community-based participatory research, COVID-19, nursing care, qualitative study

1 | INTRODUCTION

On March 11, 2020, the World Health Organization (WHO) declared a pandemic due to the respiratory disease caused by a new coronavirus (SARS-CoV-2) (Bedford et al., 2020). Europe was the worst affected continent during the months of March to May 2020 and countries such as the United Kingdom, Spain and Italy suffered severe social and healthcare problems due to COVID-19 (Yuan et al., 2020).

As regards Spain, there were a total of 4,209 confirmed cases of COVID-19 by March 2020, which led the government to declare a 'State of Emergency' in the whole country, aiming to alleviate the healthcare crisis brought on by the pandemic (Ozamiz-Etxebarria et al., 2020). By the beginning of August 2020, Spain had totalled 344,000 cases and 28,000 deaths due to COVID-19, one of the highest rates in the world.

In a study conducted between April and May 2020 with 61,000 random Spanish individuals, only 5% of the population had IgG antibodies against SARS-CoV-2 (Pollán et al., 2020). From the beginning of the state of emergency until mid-May, a total of 40,921 cases of COVID-19 among health workers were reported to the National Epidemiological Surveillance Network, which made up 24% of the total confirmed cases at that time (Sánchez-Gómez et al., 2019).

As a consequence of this pandemic, the healthcare system was under pressure to provide hospital beds, COVID tests and ventilators and, for this reason, hospitals and healthcare centres adopted emergency management and distribution strategies for both human and material resources (Tanne et al., 2020).

Health professionals were under enormous pressure to deliver high-quality care while facing the fears generated by this new scenario, with growing risk of infection, the uncertain outlook and the lack of suitable personal protective equipment (Ranney et al., 2020). Other problems included the health professional's fear of infecting their loved ones and the exhausting, stressful routine, which resulted in numerous psychological problems (Greenberg et al., 2020). Recent data has shown that there was a high prevalence of mental health problems among health professionals, including a high prevalence of distress (71.5%), depression (50.4%), anxiety (44.6%) and insomnia (34%) (Lai et al., 2020).

In an attempt to support and protect the frontline workforce, several strategies were adopted such as psychological support, people applauding on their balconies to show their appreciation, discounts and exclusive promotions for health professionals and rest areas where they could stay instead of returning to their homes (e.g.

What does this paper contribute to the wider global clinical community?

- This study has identified, through the use of photographs and interviews, the challenges faced by health professionals during the pandemic. One of the most crucial needs expressed by the participants during this moment of crisis concerns the lack of resources, which should be urgently addressed by health managers.
- Several strategies are used by health professionals to cope with stress during the pandemic. Allowing the interaction of these professionals in a friendly and humanised environment is essential to alleviate suffering among these professionals and to promote a humanised care.
- Our findings raise awareness on the importance of the support provided by the community to health professionals. However, high expectations could cause vulnerability and impotence in these health professionals during moments of crisis.

hotels or guest houses) (Chen et al., 2020). This new relationship between the healthcare workers and the population has added greater dignity and perceived value to the healthcare profession (Hopkins, 2021).

Within the context of this unprecedented pandemic, it is essential to research into the experiences of health professionals in this crucial moment to further understand the link between healthcare and society. However, most studies up to now have focused on the biological aspects of the virus, the consequences of the social restrictions or the prevalence of mental health problems among patients and health professionals (Agrawal et al., 2021; Ohm et al., 2021; Karaivazolou et al., 2021). It is vital to move forward from these traditional quantitative measures in order to fully explore the human experience during this crisis (Macdonald & Hülür, 2021).

In this context, health professionals have used their voices and images in several different ways during this crisis. Although a number of qualitative studies have been carried out in health professionals during the pandemic (Kackin et al., 2020; Liu, et al., 2020), to our knowledge, so far no study has used the Photovoice method. The present study aims to bridge this gap, advancing in our understanding on this topic and revealing information that would never appear

in words, revealing the Covid-19 world as it is perceived 'through the eyes' of the participants.

2 | METHODS

2.1 | Aims

The researchers sought to address the question, 'What are the experiences, challenges and opportunities for health professionals while working during the COVID-19 pandemic?' Photovoice was chosen as the most effective method to reflect the collaborative relationship with participants, and fully reveal their emotional experiences. Thus, the present study aims to elicit the experiences and perspectives of health professionals working on the frontline in the COVID-19 pandemic.

2.2 | Design

This is a participatory descriptive qualitative study using Photovoice (Wang & Burris, 1997). The approach focuses on using visual resources as a way of approaching the background and experiences of the protagonists (Caldarola, 1988). The photographs reveal the emotional and subjective aspects of a key moment in the life of those taking the photo, so that their feelings can be perceived and shared in a spontaneous way (Vaisman, 1999). In addition, the participant observation was carried out as part of the first researcher's daily work in a hospital, which gives us a greater understanding of phenomena from the point of view of the health professionals themselves (Alves et al., 2021). Using this approach, the researcher took part in the daily routines during the pandemic, reacted to and interacted with colleagues in the events and situations that unfolded before them, and used both tacit and explicit information in the analysis that allowed the triangulation of data (Zahle, 2012; DeWalt & DeWalt, 2010).

2.3 | Photovoice method

Photovoice is a method which used photographs taken by participants which empowers them to comment on their experiences during everyday events (Oosterbroek et al., 2020; Wang & Burris, 1997). Photovoice projects therefore include not only images, but also a discussion about each one through a commonly deployed method called the 'SHOWED' mnemonic (C. Wang & Burris, 1997). This mnemonic reminds us that five questions should be asked in the interviews for each photograph: (1) What does the photo show?; (2) What is really happening here?; (3) How does this relate to your lives?; (4) Why does this situation exist? and (5) What can be done about it?

This study consisted of using relevant images taken by health professionals from different healthcare centres in Spain during the

COVID-19 pandemic, together with structured interviews based on the 'SHOWED' mnemonic and participant observation. All the interviews were carried out by two researchers (*Author 1, Author 4*) between March and June 2020. *Author 1* has been trained to conduct interviews and *Author 4* has training in social research.

2.4 | Participants and eligibility criteria

The participants were health professionals from different cities of Spain providing care to patients with COVID-19 and working in public or private healthcare services. The participants were selected by purposive and snowball sampling to represent a balanced number of services and a diverse range of ages and experiences. WhatsApp was the main strategy used for data collection and gathering the information and photographs. First, two researchers (*Author 1, Author 4*) sent out a WhatsApp message (including a poster describing the study) to a wide range of professional and personal contacts. Next, health professionals who wanted to participate provided the main researchers with their affiliation data and chose whether to be contacted by telephone, social media or email. Unfortunately, the activation of the 'State of Emergency' in Spain has not allowed face-to-face meetings with health professionals, nor mobility between cities. As a result, all the data was collected electronically.

In order to be eligible, healthcare professionals had to be: 18 years old or over, in active work during the COVID-19 pandemic in public or private healthcare services in Spain, willing to take part in the study, interested and able to take photographs reflecting their experiences and able to participate in audio-recorded interviews. There were no exclusion criteria based on age, gender, healthcare profession, type of service or work institution.

2.5 | Procedure

Before sample selection, all the authors of the manuscript decided which spoken and written information they would provide to the health professionals, and that the study would be carried out in two phases. After sample selection, *Authors 1 and 4* approached half of the random sample and, to ensure they were doing it in the same way, observed together the procedure with the first four participants. During the first phase, the participants were given the choice to accept or refuse to take part in the study. Following verbal consent, the online meeting included: (a) an explanation about how the Photovoice method worked; (b) a summary of the methods of obtaining information on the participants' experience and sociodemographic data; (c) a review of the ethical/safety issues of using photographs and the use of a third-party release form for other identifiable individuals captured in photographs, (d) instructions on how to take photographs which reflect the personal meaning of their work, and (e) the written consent request.

The participants were instructed to share between one and six photographs. Next, in the second phase, these images were

interpreted following the 'SHOWED' mnemonic (Wang & Burris, 1997) using interviews to reveal the experiences they had had while working in the pandemic, which enhance the meaningfulness and contextualisation of the photographs. The individual interviews were conducted in Spanish and ensured that the participants felt comfortable, safe and free to express their ideas. These were recorded, transcribed and finally translated into English. Each interview lasted between 30 to 45 min. In this case, another author (*Author 3*) was present in half of the interviews given by *Authors 1 and 4* to act as an arbitrator to check that the interviews were conducted in a similar style. Data collection continued until saturation criteria.

2.6 | Ethical considerations

The study was approved by the Andalusian Research Ethics Committee, Spain (Code: 0978-N-20). Verbal informed consent was obtained by the researchers via telephone during the first contact with the participants. During the first phase (meeting to explain the entire procedure), each researcher also obtained the informed written consent of all the participants, after explaining the objective of the study and that their participation would consist of a two-phase process: taking photos and discussion/interview. In addition, further consent was obtained from other people who could appear in their photographs. In any case, it was agreed that none of the people would be identified by name and that these images would only be used for research purposes.

2.7 | Data analysis

A thematic analysis approach was used, following the principles established by Graneheim and Lundman (2004). *Authors 1, 2 and 4* independently transcribed and reviewed all the recordings for accuracy and to familiarise themselves with the data. The aim of the first reading was to ensure the accuracy of the typed transcript, and that meanings of words and phrases had not been misinterpreted in the translation process. The interview transcripts were first coded line-by-line, and then grouped into broader thematic clusters by identifying relationships, similarities and links between themes that reflected the participants' perceptions while working during the COVID-19 pandemic.

All the themes and subthemes were reviewed for consistency of meaning and to ensure that the data was accurately represented (Braun & Clark, 2006), and each thematic cluster was then given a descriptive label, used by the participants, that captured the essence of each theme. Finally, outstanding examples from the data were selected by the researchers to articulate the story from the perspective of the health professionals.

We also used MAXQDA software to ensure that the themes and subthemes were coherent, with their supporting data, and to see if any themes had been missed out or others could be used. Some photographs and texts were labelled under more than one category

because of the number of ideas they presented. Related nodes were grouped together to create preliminary themes. For example, two subthemes (e.g. Personal protection in the workplace, Working conditions) were grouped together in a theme entitled 'Management of institutional resources'.

The final themes were then refined, which Braun and Clarke describe as 'identifying the essence of what each theme is about' (Braun & Clarke, 2006). Random samples of codes and example quotes were also checked by another researcher (*Author 3*) to ensure consistency in code application.

Finally, the sources and methods were triangulated from the data from participant observation taken by *Author 1*. The information collected in the field notes increased the reliability of the data, as consistencies or divergences could be checked.

2.8 | Trustworthy

This research followed the criteria established in The Consolidated Criteria for Reporting Qualitative Studies (Supplementary Material). The researchers used diary entries to identify any preconceived ideas, and these were challenged by giving transcripts to two health professionals for comment, although no corrections were necessary.

Although the original conceptualisation of photovoice methodology uses large- or small-scale group discussions about photographs to trigger a critical dialogue about personal and community issues (Wang, 1999), no focus group was used to increase the feasibility of the participant participation. However, the methods used in our study are well-established and have been utilised in previous studies (Morrison & Thomas, 2014; Nykiforuk et al., 2011a, 2011b).

Any changes detected were discussed openly to achieve greater understanding. The images and their descriptions also represented a kind of triangulation between the visual image and narrative description. As the study evolved, the authors attended debriefing sessions to check findings and interpretations and to question the themes identified by the first author.

3 | RESULTS

A total of 20 health professionals participated in the study, of which 75% were women with a mean age of 41.1 (SD: 9.50) years old. The participants had a mean experience of 17.24 years (SD: 9.58) working as health professionals. They came from 7 private and 6 public healthcare centres, mainly from Andalusia (65%), in the south of Spain, but also from cities such as Madrid and Barcelona. Most of the health professionals included in the study were nurses and nursing assistants (65%), with 60% working during the pandemic in hospital settings (taking care of inpatients), and 30% of the sample working as ICU and Emergency room staff. The main characteristics of the participants are shown in Table 1.

In the qualitative analysis examining the health professionals' experiences while working during COVID-19 pandemic, the following three

TABLE 1 Health professionals (HP) demographic details. A table outlining the demographic details of the participants involved in the study

HW	Sex	Age (years)	Location	Institution	Unit/Service	Job	Number of years/ months as HP	Number of photos
HP1	Woman	33	Seville	Virgen Valme Hospital (Public)	ICU	Nurse	12 years	6
HP2	Woman	33	Madrid	Nuevo Belén Hospital (Private)	Obstetrics and Gynaecology	Midwifery	12 years	3
HP3	Woman	21	Seville	Fátima Medical Clinic (Private)	Radiology	Radiologic Technician	7 months	2
HP4	Woman	35	Jaén	Andalusian Public Health Service (Primary care)	Primary health care	Nurse	12 years	1
HP5	Man	57	Murcia	Private institution	Dental clinic	Dentist	25 years	1
HP6	Woman	48	Málaga	Private institution	Occupational Health Service	Nurse	27 years	2
HP7	Man	36	Cádiz	Private emergency service	Critical care and emergency device (ambulances)	Emergency technician	13 years	4
HP8	Woman	48	Seville	Virgen Macarena Hospital (Public)	Otorhinolaryngology	Nursing assistant	28 years	3
HP9	Man	37	Madrid	Ramón y Cajal Hospital (Public)	Internal Medicine	Nursing assistant	10 years	5
HP10	Woman	34	Badajoz	Private institution	Nursing Home	Nurse	7 years	6
HP11	Woman	60	Seville	Virgen del Rocío Hospital (Public)	Internal Medicine	Nursing assistant	42 years	3
HP12	Woman	38	Seville	Virgen Macarena Hospital (Public)	ICU	Nurse	15 years	3
HP13	Woman	50	Seville	Virgen del Rocío Hospital (Public)	Surgical area	Nurse	8 years	1
HP14	Woman	42	Seville	Virgen Valme Hospital (Public)	Oncology / ICU	Nurse	20 years	2
HP15	Woman	43	Seville	Virgen Macarena Hospital (Public)	Otorhinolaryngology	Nurse	22 years	1
HP16	Woman	39	Seville	Virgen Macarena Hospital (Public)	Otorhinolaryngology	Nurse	18 years	2
HP17	Woman	53	Seville	Virgen Macarena Hospital (Public)	Otorhinolaryngology	Nurse	30 years	2
HP18	Man	32	Madrid	Private emergency service	Critical care and emergency device (ambulances)	Emergency technician	15 years	6
HP19	Man	44	Barcelona	Clínica Hospital	Traumatology	Physician	17 years	2
HP20	Woman	37	Barcelona	Vall d'Hebron Hospital	ICU	Physician	11 years	1

themes were generated (See Coding tree in Supplementary Material): (1) Personal Attitudes of Healthcare Professionals; (2) Support from the Community; and (3) Management of Institutional Resources.

3.1 | Theme 1: Personal attitudes of healthcare professionals

3.1.1 | Sense of responsibility

A general sense of responsibility in the community was experienced by most of the health professionals. Despite the fact that the participants felt that they had an important role to play during the pandemic and felt empowered with this duty, this work was seen as a challenge by the participants since the risks and fears of contagion due to COVID-19 were continually present. This sense of responsibility enabled these professionals to overcome stressful situations and the strenuous routine. Expressions such as 'everybody is working at their maximum capacity' and 'I really depend on my colleagues, and knowing that I have them there makes the work much easier', reveal the role of these health professionals. In this context, many health professionals raised their fists as a symbol of strength / pride in their work (Figure 1).

'This is the first photo I took on the first day that we had patients with COVID. I decided that I was going to take all this with great energy and even though I was scared to death, I was also determined to beat this virus; together we were going to fight it' (Figure 1a).

3.1.2 | Putting their 'hearts' into their jobs

The pandemic has impacted on the routine of health professionals in an important way. They were forced to follow severe restrictions

(e.g. restriction of the number of staff entering dining rooms, prohibition of family visits, social distancing and isolation of patients). Likewise, unsuccessful cases caused health professionals to suffer, causing feelings of failure, despair and sadness. However, despite these challenging moments, the health professionals were determined to continue providing humanised care. This is best illustrated by the following photos, where a nursing assistant stated that she was putting her 'heart' into her job, making the symbol of a heart (Figure 2b) and health professionals used their devices as a means of reducing their loneliness and connecting families during confinement (Figure 2).

'Some measures are very hard for us, because the humanization of care has deteriorated in order to keep everyone free of COVID-19. It is very sad not to be able to kiss or hold the hands of the elderly without gloves' (Figure 2a).

3.1.3 | Keeping calm and relaxed

Most health professionals experienced distress, working several hours without a rest, with busy night shifts and under the threat of an unprecedented health crisis. The participants used good humour, leisure and reflective moments of reflection to overcome these challenges. While some professionals were able to cope with the situation through spirituality '*When I leave home in the morning, I realize that I have prayed while driving to the Hospital. It has been unconscious - I don't usually pray every day - but this is an exceptional situation*', others took their minds off their problems by reading magazines and reinforcing their collective identity by celebrating popular festivals in the workplace as a way of relieving the stress. In this way, they managed to cope with the stress and continue providing quality care, while strengthening the feeling of being part of a community,

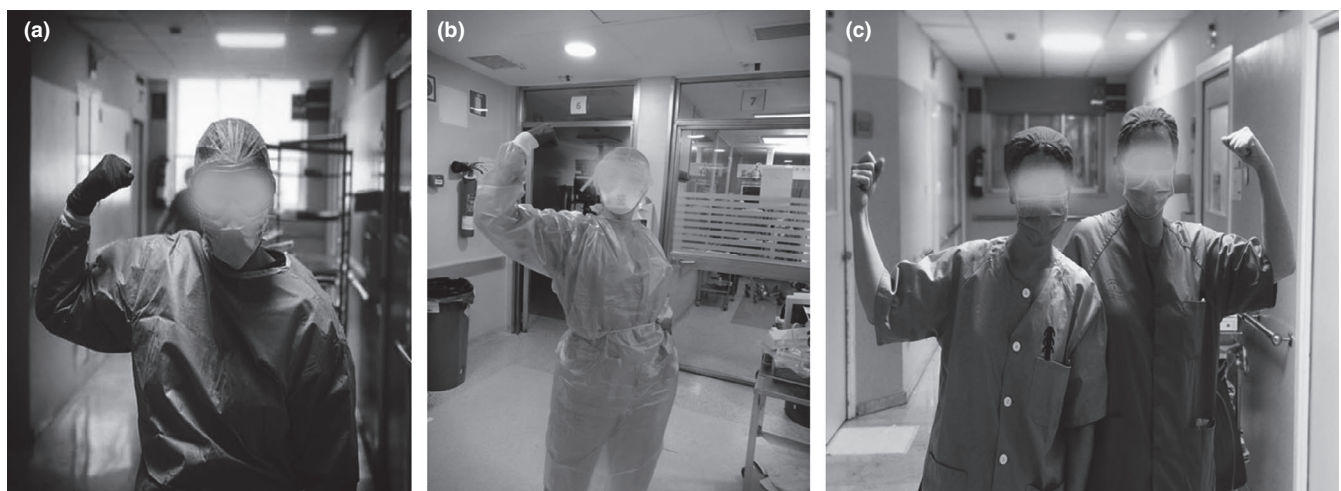


FIGURE 1 Arm raised and clenched fist as a symbol of strength working on the frontline in the COVID-19 pandemic. (a) Nurse, Subject15; (b) Nurse, Subject12; (c) Nurse, Subject16

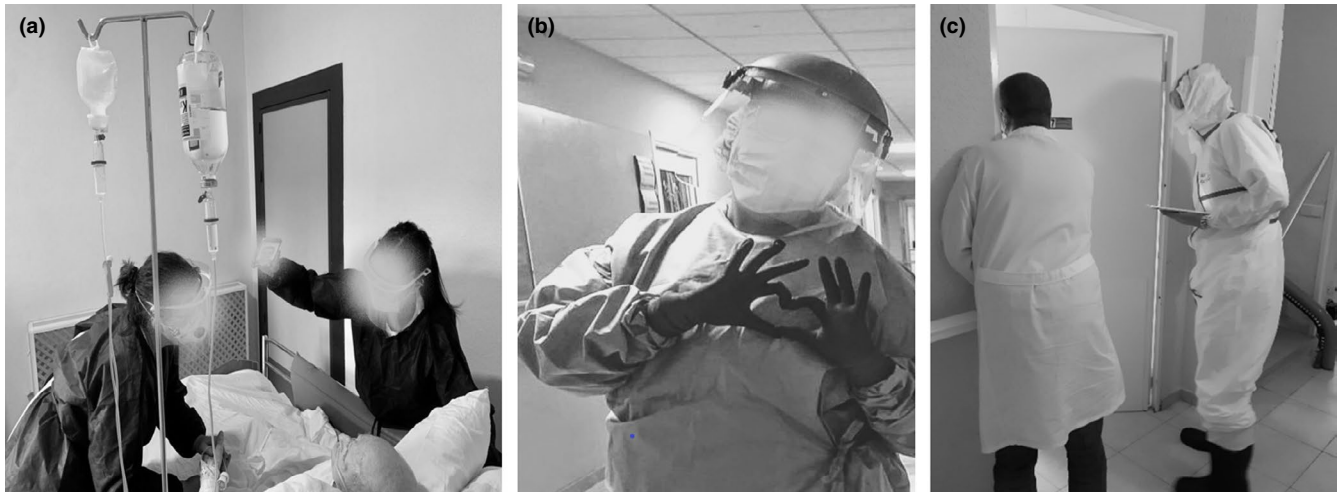


FIGURE 2 Humanisation of care and daily attention to patients. (a) Nurse; Subject10; (b) Nursing assistant, Subject8; (c) Nursing assistant, Subject9 [Colour figure can be viewed at wileyonlinelibrary.com]

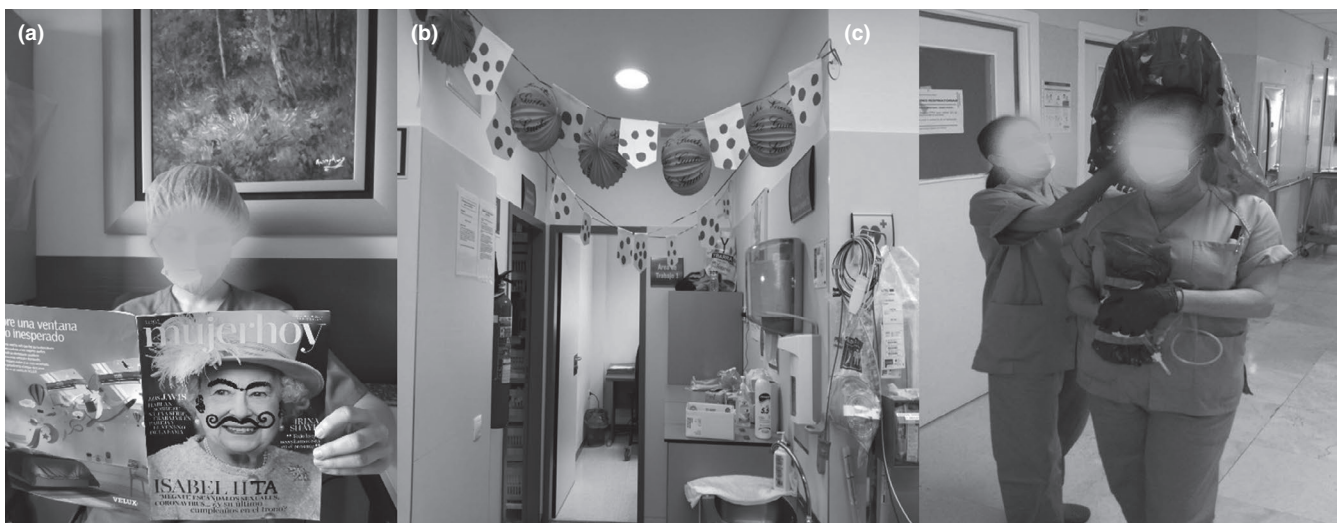


FIGURE 3 What do professionals do to cope with work stress during the pandemic? Their free time is used to read, or to mark popular festivals that cannot be held because of COVID-19. (b) represents the April Fair, a typical festival in southern Spain, where women wear flamenco dresses and people gather to drink, eat, sing and dance Sevillanas (traditional dance in Seville). (c) represents Holy Week: here, Holy Thursday, when many women dress in mourning and wear black headdresses to recall the death of Jesus Christ. (a) Midwifery; Subject2; (b) Nurse, Subject1; (c) Nurse, Subject17

and of mutual support. The following photos reflect these moments (Figure 3).

3.2 | Theme 2: Support from the community

3.2.1 | Thank you!

During COVID-19 pandemic, health professionals have received numerous signs of affection and support from their families, citizens, companies and institutions. Food donations, masks sewn by elderly women, expensive robes made by famous designers, hair bands, drawings by small kids and cups of coffee donated by beverage companies were among the items offered to health

professionals. These items were frequently accompanied by motivating messages, aiming to protect and encourage them. Because of the pandemic, some health professionals have mentioned that it was the first time that they have received so much recognition, especially nurses. The participants recognised that this was how the patients and relatives expressed their appreciation for the qualified, professional and essential work they provided: since they cannot help directly, they indirectly support those working during the pandemic (Figure 4).

'It is incredible the amount of gifts and details that we receive (...) I think we'd settle for little, because you know that this is the only thing you are going to expect, no days off, no pay raise... not that. Just the

motivation to keep on working because you are going to eat a piece of cake that says "Thank you for being there and taking care of us" (Figure 4e).

Two nurses found motivation to work hard during the pandemic in their family through receiving special drawings for their birthday: *'It was a surprise and a very emotional family day. My workdays are full of anxiety and stress... for me, my heroes are my family, teachers, children, grandparents, those who stay at home... we all have to face this virus'* (Figure 4c).

'With this drawing, I know that my children are proud of me. My children really want to see me, but they know that I have to help others, and they have understood perfectly that while the state of alarm continues, they will have to stay with their grandparents... that's something that really touches my heart' (Figure 4d).

3.2.2 | The link between health professionals and superheroes

In this moment of crisis, the population tends to glorify the professionals working during the pandemic. This was clear when evaluating several moments and photographs that reveal a connection between health professionals and 'superheroes', ranging from the hotel elevator with a superhero drawing representing health professionals to a hair band with the word 'Superhero' on it. The use of this figurative image is an attempt to appreciate the efforts of these highly skilled health professionals during the pandemic (Figure 4).

'They made us this special device to hold your mask on so it doesn't hurt your ears, because we have to keep our masks on for so long...' (Figure 4a).

'That is the elevator of the hotel where the Samu workers in Madrid stayed... They have written motivational phrases in different areas of the hotel. They are constantly thanking us - every two or three days the hotel management sends us a note thanking us for the work we do' (Figure 4e).

3.3 | Theme 3: Management of institutional resources

3.3.1 | Personal protection in the workplace

Participants generally perceived a lack of resources regarding personal protection in the workplace. In Spain, the number of health professionals infected by COVID-19 from the beginning of the crisis up to July 2020 was 52,036 (21.2% of the total number of infected).

The most common complaints included the lack of masks, gloves and hand gels (hydroalcoholic solution), together with a demand for their proper use (i.e. not reusing the material) and the establishment of collective protection measures. For instance, one dentist (Figure 5c) used his imagination to protect himself against COVID-19 (Figure 5).

'Starting the shift, the supervisors came to the ICU and provided us with a yellow waterproof jumpsuit, a hospital gown, a surgical mask and another FFP2-type mask. That's what there was for the entire shift, knowing full well that it wasn't enough (...). That generates despair and job vulnerability' (Figure 5a).

'As a preventive measure, we always work together with a colleague so that one helps the other to remove the personal protective equipment. However, we are not very confident about the quality of the equipment - they should be more waterproof. It's made of a very fine material and it doesn't completely cover us' (Figure 5b).

3.3.2 | Working conditions

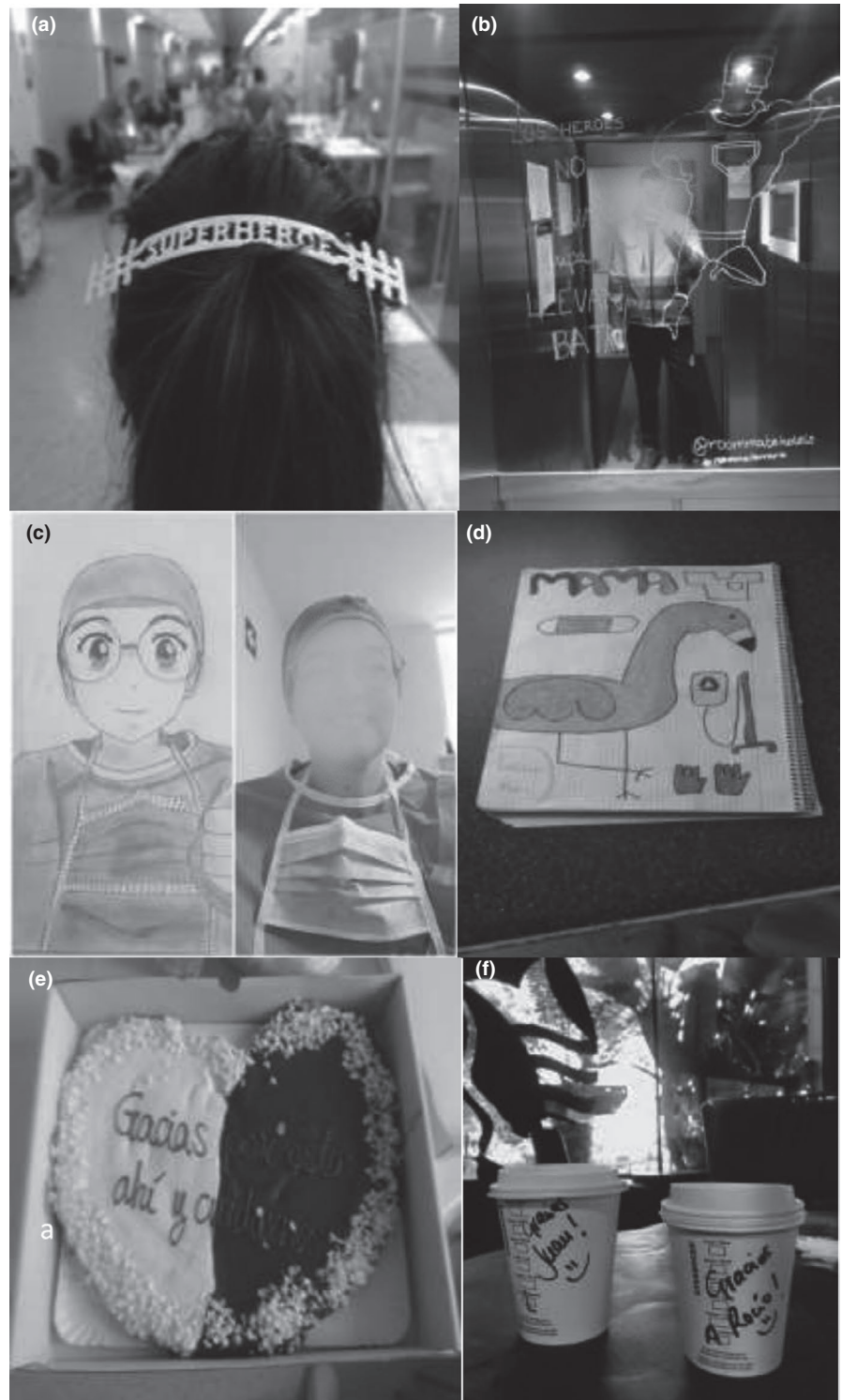
These conditions, together with the speed with which professionals often have to act with patients who are ill with COVID-19, increased the risk of accidents at work. *'On one occasion, the part that covers my head had just been washed with water and bleach and it had not dried well and after putting it on, after a few minutes, it burned my throat and eyes. I was with my patient in the ICU, I felt that I was choking, and I had to leave quickly without finishing my job. It took me at least an hour to recover; I coughed non-stop due to the feeling of suffocation. The risks of wanting to do your job well and caring for patients who are worse than you almost cost me my life'* (Nurse, HP1).

Finally, changes in the work schedule and in the way of caring for patients and family due to the pandemic are also evident. While in normal situations, a patient's hygiene is performed daily in the ICU, now, some centres now have alternate hygiene days (with exceptions), plastic-covered medical equipment and different medication dosing schedules so that they can reduce the number of visits to the patient's room. The family is also contacted by telephone, and entry into the health centre or the patient's room or box is never permitted.

4 | DISCUSSION

Our results revealed that, despite the fact that the health professionals in this study are exposed to occupational hazards while caring for patients with COVID-19 (i.e. risk of contagion and lack of appropriate personal protective equipment), they have a strong sense of responsibility in the community. In order to handle such stressful

FIGURE 4 Emotional support received from colleagues, family, neighbours, friends, anonymous citizens, and companies. (a) Nurse, HP1; (b) 'Heroes don't wear capes, they wear robes' Emergency technician, Subject18; (c) Nurse, Subject13; (d) Nurse, Subject14; (e) 'Thank you for being there and taking care of us' Nurse, Subject4; (f) 'Thank you in a coffee' Physician, Subject20



situations, they use coping mechanisms, good humour and leisure, but also receive many signs of affection and support from the population, who see them as them highly skilled health professionals.

The use of Photovoice in this study while assessing health professionals' experiences during the COVID-19 pandemic was a novelty and allowed us to 'see through the eyes of participants', revealing their day-to-day reality, engaging them in the research, showing the most important aspects and expressing their ideas in non-verbal ways

(Nykiforuk et al., 2011a,2011b). Likewise, the use of this method could result in benefits to those participating such as empowerment, creative expression and a sense of achievement, particularly in moments of suffering such as the pandemic (Buchan, 2020).

Our findings using this method revealed different perspectives. First, one of the themes (theme 3) that appeared frequently in the photographs were the risks faced by the participants. This was clearly an important issue, particularly in the first stage of the pandemic

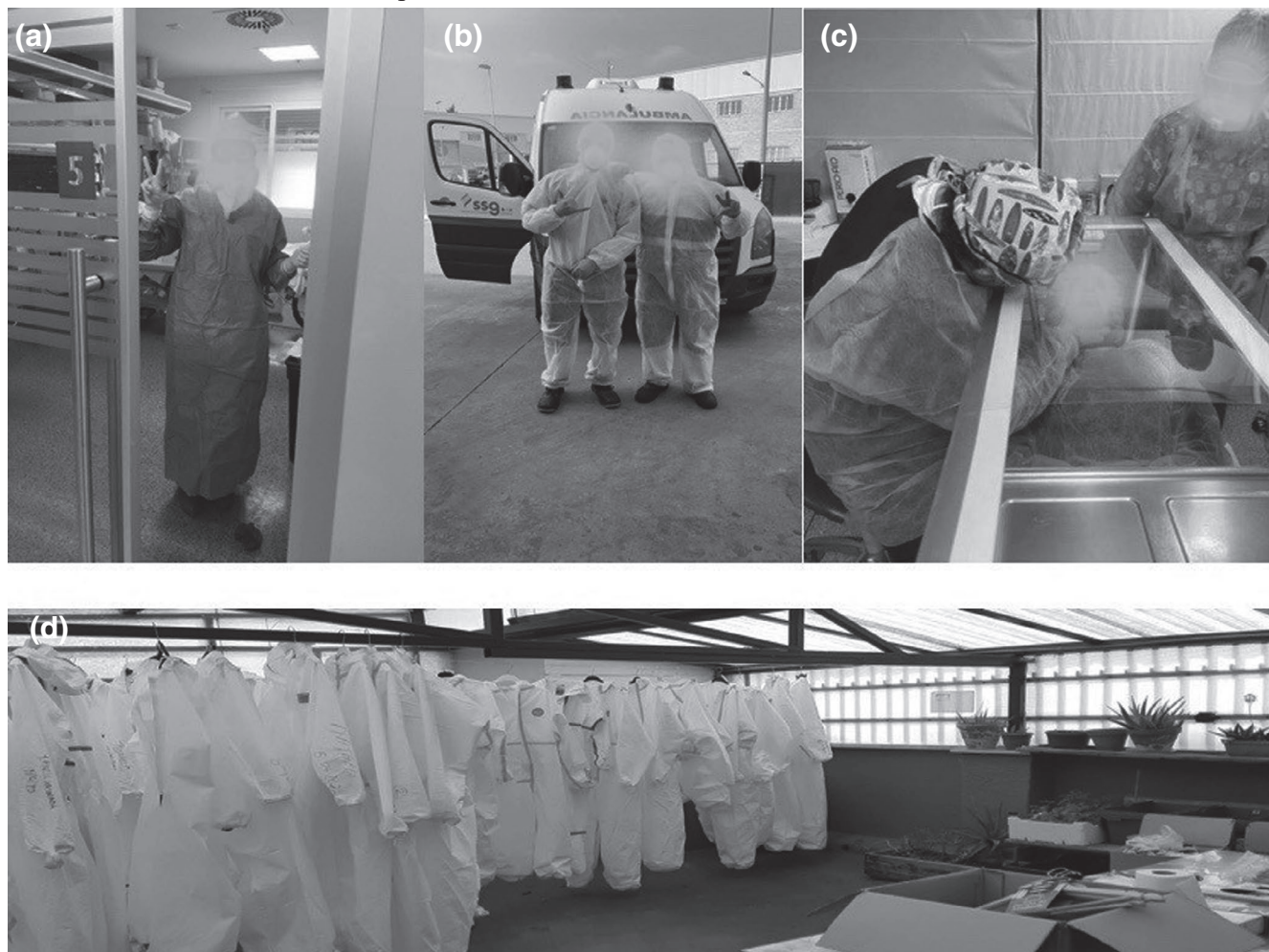


FIGURE 5 Individual and collective protection equipment. (a) Nurse, Subject1; (b) Emergency technician, Subject7; (c) Dentist, Subject5; (d) Emergency technician, Subject8

when the vaccine was not available. The risks faced by health professionals in Spain at the time of the study (2020) were similar to other professionals worldwide. A previous Portuguese study (Peres et al., 2020) has shown that approximately 94% of health professionals believed the probability of being infected with the virus was moderate to high and 88% believed their families could be infected because of them, as compared to a 20% prevalence of responding healthcare workers infected (Lancet, 2020). This high risk is reflected in the opinions and photos of the health professionals in Spain, representing the challenging situations they were exposed at and the lack of suitable resources.

The lack of personal protective equipment (PPE) is another important problem highlighted by the health professionals in our study. This shortage of personal protective equipment has been already documented in quantitative articles. In the USA, 88% of cities revealed inadequate personal protective equipment supplies for their medical personnel (Kamerow, 2020). This problem has led government and medical organisations to advocate a rational use (Feng et al., 2020) and the reuse of personal protective equipment (Livingston et al., 2020), despite the lack of evidence. For this

reason, many health workers had to manufacture their own systems of protection and, as a result, Spain had the highest number of health workers infected in Europe (Bandyopadhyay et al., 2020). Likewise, the risks of contamination during the donning and doffing of personal protective equipment (Muñoz-Leyva & Niazi, 2020) and the ulcers caused by its use are also significant problems (Jiang et al., 2020).

Another issue of concern was the fact that healthcare professionals did not have the appropriate resources to care for their patients at the time the study was carried out. This is particularly true for Spain, in which both the material and human resources were in short supply. For example, the nursing ratio in Spain (5.9 nurses per 1000 inhabitants) was lower than the ratio in Europe (9 nurses per 1000 inhabitants), resulting in a severe work overload (The Lancet Public, H, 2020).

Despite the negativity of this theme, the other two themes mostly reflected positive aspects. In theme 1, an important sense of responsibility was observed among these health professionals, who believe they play a key role in helping the community. This pattern of conduct has already been seen in other studies dealing with the

COVID-19 in China (Sun et al., 2020). In a qualitative study of 20 nurses, 70% of participants mentioned that professional responsibility prompted them to participate in the 'mission to contain the epidemic'. The same attitude was observed in a qualitative study in the Hubei province (China) (Liu, et al., 2020), the first epicentre of the virus, which showed that the health professionals had a strong sense of responsibility to alleviate patient's suffering and to safeguard the whole country from the virus. Quantitative studies have also found similar results. In a Chinese study with 5,570 nurses (Li et al., 2020), nurses expressed a strong sense of responsibility, motivated by the fact that society needed help at that time. Likewise, another study in the US (Shechter et al., 2020) found that 61% of the 657 health-care professionals increased the sense of meaning and purpose with the COVID-19 pandemic. Our participants' photos clenching their fists reflect the same sense of purpose and responsibility towards the community.

All the stressful moments seemed to be minimised by the social support provided by the community, as shown in theme 2. Previous studies have shown that higher levels of social support during the pandemic were associated with better mental health and sleep quality in the medical personnel in China (Xiao et al., 2020). As noted in several photos, gifts were an important stimulus for these health professionals to feel valued by the community.

It is important to highlight that coping methods were commonly used by these professionals in order to manage stress. A previous study in the US (Shechter et al., 2020) found that physical exercise, talking to others, yoga and spirituality were the most common strategies used by health professionals. In our sample, spirituality was mentioned as a coping strategy during stress, but the most important strategy that appeared in the photos was the harmonious interaction with colleagues and a calm, relaxing work environment.

Finally, in some photographs, health professionals were considered 'heroes' or 'superheroes' by the community. The term 'superhero' seems to have started with the British event 'Clap for carers' one night in March and developed into a global phenomenon supporting those in the frontlines of the pandemic. This is an attempt to show gratitude for the sacrifice and valuable work of these highly skilled health professionals' (Baidal Jennifer & Wilner Philip, 2020). However, it is important to highlight that this term is not totally appropriate in this context. Although this support serves as encouragement in this time of uncertainty, health professionals prefer the community recognition of their efforts rather than using an ephemeral and symbolic term that tends to portray them as 'angels' rather than highly qualified professionals.

This was not the first time nurses have been depicted as superheroes or angels who come to help. Superheroes are known for their superpowers, for not failing, not giving up and not getting sick (Ornell et al., 2020). This type of image seems to put excessive pressure on these professionals and, as a result, psychological, emotional and physical problems may arise. Nurses are qualified professionals, trained to perform a number of functions that cannot be supplemented by other professionals. They are prepared to

take care of patients with professionalism, qualification and responsibility. However, they are also vulnerable individuals, particularly when submitted to work overload as in the context of the pandemic (McAllister et al., 2020) (Cox, 2020).

4.1 | Limitations

The present study has certain limitations which should be taken into account while interpreting the findings. First, as regards the research environment, this study was carried out in Spain and reflects the experiences of health professionals from Spanish medical facilities. Future studies should compare different countries to further explore any differences due to cultural and institutional aspects. Second, since nurses are one of the largest sectors of healthcare staff working with patients affected by COVID, this profession was the most represented and, for this reason, the sample had a high proportion of women. Third, the transferability of our findings is somewhat limited, since other health professionals (e.g. health professionals not working in these hospitals) were not included. Fourthly, it is important to note that the process of interpreting photographs as used in the Photovoice method relies on the researcher's analysis and interpretation. Despite this limitation, the photographs were used in combination with interviews to facilitate the expression of participants' perceptions, thus constituting a productive strategy for data collection. Finally, our data collection was carried out online rather than face-to-face, which could make the interviews more impersonal.

5 | CONCLUSION

This study showed that the Photovoice method helped to elicit the experiences and perspectives of health professionals working on the frontline in the COVID-19 pandemic, and proved to be a low-cost, easy-to-use process. The photographs and excerpts revealed that, despite the risks of contagion and the lack of suitable personal protective equipment, the healthcare workers had a strong sense of responsibility, and felt supported and appreciated by the community, who saw them as highly skilled health professionals.

These results support the essential role of health professionals during the pandemic, and highlight the issue that health managers should be aware of the problems faced by these professionals in order to provide them the appropriate resources. In this context, the community also seems to play an important role in alleviating the work overload for these professionals.

6 | ETHICAL CONSIDERATIONS

The study received approval from the Andalusian Research Ethics Committee, Spain (Code: 0873-N-16). Informed consent was obtained from all study participants and from individuals appearing in the photographs that have been used in this publication.

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CONFLICT OF INTEREST

The authors declared no competing interests.

AUTHOR CONTRIBUTIONS

Study conception and design: BBR, RDC; data acquisition: BBR, RDC; data interpretation: BBR, RDC, RAA, GL; data analysis: BBR, RDC, RAA; drafting of the article: BBR, RDC, RAA, GL; critical revision of the article for important intellectual content: BBR, RDC, GL; and final approval of the version to be submitted: BBR, RDC, RAA, GL.

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REFERENCES

- Agrawal, D., Parchand, S., Agrawal, D., Chatterjee, S., Gangwe, A., Mishra, M., & Sahu, A. (2021). Impact of COVID-19 pandemic and national lockdown on ocular trauma at a tertiary eye care institute. *Indian Journal of Ophthalmology*, 69(3), 709–713. https://doi.org/10.4103/ijo.IJO_3200_20
- Alves, K. Y. A., Rodrigues, C., Salvador, P., & Fernandes, S. D. M. (2021). Use of photography in qualitative research in the health area: scoping review. *Cien Saude Colet*, 26(2), 521–529. <https://doi.org/10.1590/1413-81232021262.41052020>.
- Baidal Jennifer, W., & Wilner Philip, J. (2020). The heroes and heroines: Supporting the front line in New York City during Covid-19. *NEJM Catalyst Innovations in Care Delivery*.
- Bandyopadhyay, S., Baticulon, R. E., Kadhun, M., Alser, M., Ojuka, D. K., Badereddin, Y., Kamath, A., Parepalli, S. A., Brown, G., Iharchane, S., Gandino, S., Markovic-Obiago, Z., Scott, S., Manirambona, E., Machhada, A., Aggarwal, A., Benazaize, L., Ibrahim, M., Kim, D., ... Khundkar, R. (2020). Infection and mortality of healthcare workers worldwide from COVID-19: a systematic review. *BMJ Global Health*, 5(12), e003097. <https://doi.org/10.1136/bmjgh-2020-003097>
- Bedford, J., Enria, D., Giesecke, J., Heymann, D. L., Ihekweazu, C., Kobinger, G., Lane, H. C., Memish, Z., Oh, M.-D., Sall, A. A., Schuchat, A., Ungchusak, K., & Wieler, L. H. (2020). COVID-19: Towards controlling of a pandemic. *The Lancet*, 395(10229), 1015–1018. [https://doi.org/10.1016/S0140-6736\(20\)30673-5](https://doi.org/10.1016/S0140-6736(20)30673-5)
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp0630a>
- Buchan, C. A. (2020). Therapeutic benefits and limitations of participatory photography for adults with mental health problems: A systematic search and literature review. *Journal of Psychiatric and Mental Health Nursing*, 27(5), 657–668. <https://doi.org/10.1111/jpm.12606>
- Caldarola, V. J. (1988). Imaging process as ethnographic inquiry. *Visual Anthropology*, 1(4), 433–451. <https://doi.org/10.1080/08949468.1988.9966499>
- Chen, Q., Liang, M., Li, Y., Guo, J., Fei, D., Wang, L., He, L. I., Sheng, C., Cai, Y., Li, X., Wang, J., & Zhang, Z. (2020). Mental health care for medical staff in China during the COVID-19 outbreak. *The Lancet Psychiatry*, 7(4), e15–e16. [https://doi.org/10.1016/S2215-0366\(20\)30078-X](https://doi.org/10.1016/S2215-0366(20)30078-X)
- Cox, C. L. (2020). 'Healthcare Heroes': problems with media focus on heroism from healthcare workers during the COVID-19 pandemic. *Journal of Medical Ethics*, 46(8), 510–513. <https://doi.org/10.1136/medethics-2020-106398>
- DeWalt, K., & DeWalt, B. (2010). *What is participant observation? Participant Observation: A guide for fieldworkers*, 2nd ed. (pp. 1–16). AltaMira Press.
- Feng, S., Shen, C., Xia, N., Song, W., Fan, M., & Cowling, B. J. (2020). Rational use of face masks in the COVID-19 pandemic. *The Lancet Respiratory Medicine*, 8(5), 434–436. [https://doi.org/10.1016/S2213-2600\(20\)30134-X](https://doi.org/10.1016/S2213-2600(20)30134-X)
- Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, 24(2), 105–112. <https://doi.org/10.1016/j.nedt.2003.10.001>
- Greenberg, N., Docherty, M., Gnanapragasam, S., & Wessely, S. (2020). Managing mental health challenges faced by healthcare workers during covid-19 pandemic. *BMJ*, 368, m1211. <https://doi.org/10.1136/bmj.m1211>
- Hopkins, P. D. (2021). Viral heroism: What the rhetoric of heroes in the COVID-19 pandemic tells us about medicine and professional identity. *HEC Forum*, 1–16. <https://doi.org/10.1007/s10730-020-09434-4>
- Jiang, Q., Liu, Y., Wei, W., Zhu, D., Chen, A., Liu, H., Wang, J., Jiang, Z., Han, Q., Bai, Y., Hua, J., Zhang, Y., Guo, J., Li, L., & Li, J. (2020). The prevalence, characteristics, and related factors of pressure injury in medical staff wearing personal protective equipment against COVID-19 in China: A multicentre cross-sectional survey. *International Wound Journal*, 17(5), 1300–1309. <https://doi.org/10.1111/iwj.13391>
- Kackin, O., Ciydem, E., Aci, O. S., & Kutlu, F. Y. (2020). Experiences and psychosocial problems of nurses caring for patients diagnosed with COVID-19 in Turkey: A qualitative study. *International Journal of Social Psychiatry*, 0020764020942788. <https://doi.org/10.1177/0020764020942788>
- Kamerow, D. (2020). Covid-19: the crisis of personal protective equipment in the US. *BMJ*, 369, m1367. <https://doi.org/10.1136/bmj.m1367>
- Karaivazoglou, K., Konstantopoulou, G., Kalogeropoulou, M., Iliou, T., Vorvolakos, T., Assimakopoulos, K., Gourzis, P., & Alexopoulos, P. (2021). Psychological distress in the Greek general population during the first COVID-19 lockdown. *BJPsych Open*, 7(2), e59. <https://doi.org/10.1192/bjo.2021.17>
- Lai, J., Ma, S., Wang, Y., Cai, Z., Hu, J., Wei, N., Wu, J., Du, H., Chen, T., Li, R., Tan, H., Kang, L., Yao, L., Huang, M., Wang, H., Wang, G., Liu, Z., & Hu, S. (2020). Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Network Open*, 3(3), e203976. <https://doi.org/10.1001/jamanetworkopen.2020.3976>
- Lancet T. (2020). COVID-19: protecting health-care workers. *Lancet (London, England)*, 395(10228), 922. [https://doi.org/10.1016/S0140-6736\(20\)30644-9](https://doi.org/10.1016/S0140-6736(20)30644-9)
- Li, Z., Zuo, Q., Cheng, J., Zhou, Y., Li, Y., Zhu, L., & Jiang, X. (2020). Coronavirus disease 2019 pandemic promotes the sense of professional identity among nurses. *Nursing Outlook*, <https://doi.org/10.1016/j.outlook.2020.09.006>
- Liu, Q., Luo, D., Haase, J. E., Guo, Q., Wang, X. Q., Liu, S., Xia, L., Liu, Z., Yang, J., & Yang, B. X. (2020). The experiences of health-care providers during the COVID-19 crisis in China: A qualitative study. *The Lancet Global Health*, 8(6), e790–e798. [https://doi.org/10.1016/S2214-109X\(20\)30204-7](https://doi.org/10.1016/S2214-109X(20)30204-7)
- Liu, Y. E., Zhai, Z. C., Han, Y. H., Liu, Y. L., Liu, F. P., & Hu, D. Y. (2020). Experiences of front-line nurses combating coronavirus

- disease-2019 in China: A qualitative analysis. *Public Health Nursing*, 37(5), 757–763. <https://doi.org/10.1111/phn.12768>
- Livingston, E., Desai, A., & Berkwits, M. (2020). Sourcing personal protective equipment during the COVID-19 pandemic. *JAMA*, 323(19), 1912–1914. <https://doi.org/10.1001/jama.2020.5317>
- Macdonald, B., & Hülür, G. (2021). Well-being and loneliness in Swiss older adults during the COVID-19 pandemic: The role of social relationships. *Gerontologist*, 61(2), 240–250. <https://doi.org/10.1093/geront/gnaa194>
- McAllister, M., Lee Brien, D., & Dean, S. (2020). The problem with the superhero narrative during COVID-19. *Contemporary Nurse*, 56(3), 199–203. <https://doi.org/10.1080/10376178.2020.1827964>
- Morrison, T. L., & Thomas, R. L. (2014). Survivors' experiences of return to work following cancer: a photovoice study. *Canadian Journal of Occupational Therapy*, 81(3), 163–172. <https://doi.org/10.1177/0008417414534398>
- Muñoz-Leyva, F., & Niazi, A. U. (2020). Common breaches in biosafety during donning and doffing of protective personal equipment used in the care of COVID-19 patients. *Canadian Journal of Anesthesia/Journal Canadien D'anesthésie*, 1–2.
- Nykiforuk, C. I. J., Vallianatos, H., & Nieuwendyk, L. M. (2011). Photovoice as a method for revealing community perceptions of the built and social environment. *International Journal of Qualitative Methods*, 10(2), 103–124. <https://doi.org/10.1177/160940691101000201>
- Nykiforuk, C. I., Vallianatos, H., & Nieuwendyk, L. M. (2011). Photovoice as a method for revealing community perceptions of the built and social environment. *International Journal of Qualitative Methods*, 10(2), 103–124. <https://doi.org/10.1177/160940691101000201>
- Ohm, E., Hauge, L. J., Madsen, C., Grøholt, E. K., Evensen, M., & Reneflot, A. (2021). Impact of the COVID-19 pandemic on the treatment of injuries during lockdown in Norway. *Scandinavian Journal of Public Health*, 1403494821993725, <https://doi.org/10.1177/1403494821993725>
- Oosterbroek, T., Yonge, O., & Myrick, F. (2020). Participatory action research and photovoice: Applicability, relevance, and process in nursing education research. *Nursing Education Perspectives*, <https://doi.org/10.1097/01.nep.0000000000000680>
- Ornell, F., Halpern, S. C., Kessler, F. H. P., & Narvaez, J. C. M. (2020). The impact of the COVID-19 pandemic on the mental health of healthcare professionals. *Cadernos de Saúde Pública*, 36(4), e00063520. <https://doi.org/10.1590/0102-311x00063520>
- Ozamiz-Etxebarria, N., Dosil-Santamaria, M., Picaza-Gorrochategui, M., & Idoaga-Mondragon, N. (2020). Stress, anxiety, and depression levels in the initial stage of the COVID-19 outbreak in a population sample in the northern Spain. *Cadernos de Saúde Pública*, 36, e00054020.
- Peres, D., Monteiro, J., Almeida, M., & Ladeira, R. (2020). Risk perception of COVID-19 among the Portuguese healthcare professionals and general population. *Journal of Hospital Infection*, 105, 434–437.
- Pollán, M., Pérez-Gómez, B., Pastor-Barriuso, R., Oteo, J., Hernán, M. A., Pérez-Olmeda, M., Sanmartín, J. L., Fernández-García, A., Cruz, I., Fernández de Larrea, N., Molina, M., Rodríguez-Cabrera, F., Martín, M., Merino-Amador, P., León Paniagua, J., Muñoz-Montalvo, J. F., Blanco, F., Yotti, R., Blanco, F., ... Vázquez de la Villa, A. (2020). Prevalence of SARS-CoV-2 in Spain (ENE-COVID): A nationwide, population-based seroepidemiological study. *Lancet*, 396(10250), 535–544. [https://doi.org/10.1016/s0140-6736\(20\)31483-5](https://doi.org/10.1016/s0140-6736(20)31483-5)
- Ranney, M. L., Griffeth, V., & Jha, A. K. (2020). Critical supply shortages—the need for ventilators and personal protective equipment during the Covid-19 pandemic. *New England Journal of Medicine*, 382(18), e41. <https://doi.org/10.1056/NEJMp2006141>
- Sánchez-Gómez, M. B., Ramos-Santana, S., Gómez-Salgado, J., Sánchez-Nicolás, F., Moreno-Garriga, C., & Duarte-Climents, G. (2019). Benefits of advanced practice nursing for its expansion in the Spanish context. *International Journal of Environmental Research and Public Health*, 16(5), <https://doi.org/10.3390/ijerph16050680>
- Shechter, A., Diaz, F., Moise, N., Anstey, D. E., Ye, S., Agarwal, S., Birk, J. L., Brodie, D., Cannone, D. E., Chang, B., Claassen, J., Cornelius, T., Derby, L., Dong, M., Givens, R. C., Hochman, B., Homma, S., Kronish, I. M., Lee, S. A. J., ... Abdalla, M. (2020). Psychological distress, coping behaviors, and preferences for support among New York healthcare workers during the COVID-19 pandemic. *General Hospital Psychiatry*, 66, 1–8. <https://doi.org/10.1016/j.genhosppsych.2020.06.007>
- Sun, N., Wei, L., Shi, S., Jiao, D., Song, R., Ma, L., Wang, H., Wang, C., Wang, Z., You, Y., Liu, S., & Wang, H. (2020). A qualitative study on the psychological experience of caregivers of COVID-19 patients. *American Journal of Infection Control*, 48(6), 592–598. <https://doi.org/10.1016/j.ajic.2020.03.018>
- Tanne, J. H., Hayasaki, E., Zastrow, M., Pulla, P., Smith, P., & Rada, A. G. (2020). Covid-19: how doctors and healthcare systems are tackling coronavirus worldwide. *BMJ*, 368, m1090. <https://doi.org/10.1136/bmj.m1090>
- The Lancet Public Health. (2020). COVID-19 in Spain: A predictable storm? *Lancet Public Health*, 5(11), e568. [https://doi.org/10.1016/s2468-2667\(20\)30239-5](https://doi.org/10.1016/s2468-2667(20)30239-5)
- Vaisman, H. (1999). Projeto Internos: a fotografia no hospital. *Interface - Comunicação, Saúde, Educação*, 3(4), 180–186. <https://doi.org/10.1590/S1414-32831999000100022>
- Wang, C. C. (1999). Photovoice: A participatory action research strategy applied to women's health. *Journal of Women's Health*, 8(2), 185–192. <https://doi.org/10.1089/jwh.1999.8.185>
- Wang, C., & Burris, M. A. (1997). Photovoice: Concept, methodology, and use for participatory needs assessment. *Health Education and Behavior*, 24(3), 369–387. <https://doi.org/10.1177/109019819702400309>
- Xiao, H., Zhang, Y., Kong, D., Li, S., & Yang, N. (2020). The effects of social support on sleep quality of medical staff treating patients with coronavirus disease 2019 (COVID-19) in January and February 2020 in China. *Medical Science Monitor: International Medical Journal of Experimental and Clinical Research*, 26, e923541–e923549.
- Yuan, J., Li, M., Lv, G., & Lu, Z. K. (2020). Monitoring transmissibility and mortality of COVID-19 in Europe. *International Journal of Infectious Diseases*, 95, 311–315. <https://doi.org/10.1016/j.ijid.2020.03.050>
- Zahle, J. (2012). Practical knowledge and participant observation. *Inquiry*, 55(1), 50–65. <https://doi.org/10.1080/0020174X.2012.643626>

SUPPORTING INFORMATION

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