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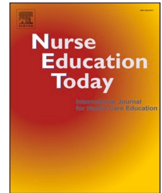

# Experiences of nursing students as healthcare aid during the COVID-19 pandemic in Spain: A phemonenological research study

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A B S T R A C T

*Background:* The coronavirus disease (COVID-19) pandemic has caused a worldwide health and social crisis directly impacting the healthcare system. Hospitals had to rearrange its structure to meet clinical needs. Spain has been experiencing a shortage of working nurses. Student nurses in their last year at university were employed to help the National Health System respond to the COVID-19 crisis.
*Aim:* The aim of this study was to explore and understand the experience of nursing students' roles as *healthcare aid* in responding to the COVID-19 crisis.
*Methods:* A qualitative phenomenology design was used to explore undergraduate nursing students' perceptions of their experiences as HAs during the COVID-19 outbreak. Open face-to-face interviews were conducted to nursing students ($n = 10$) in May 2020. Data was analyzed using the hermeneutic interpretative approach.
*Results:* All participants were women aged between 21 and 25 years. Seven main themes emerged: learning, ambivalent emotions and adaptation were classified at a personal level; teamwork, patient communication, and unclear care processes were categorized under hospital structure; and coping mechanisms were part of external factors.
*Conclusions:* Orientation, follow-up, and emotional support in crisis situations are key to unexperienced healthcare workers overcoming stressful emotions. Previous academic education and training may help novice future nurses feel more confident about their tasks and responsibilities as well as improve patient outcomes, resource management, and staff safety.

## 1. Introduction

The coronavirus disease (COVID-19) pandemic has caused a worldwide health and social crisis directly impacting the healthcare system. Spain confirmed its first case on 31 January 2020. Since then, the virus has spread rapidly and the country has been severely affected. The government declared a national lockdown on 14 March 2020, post which citizens being confined to their homes until 21 June 2020, gradually became the new normality (Spanish Ministry of Health, 2020).

The COVID-19 pandemic poses a serious challenge to health system resilience worldwide. In particular, hospital capacity and availability of intensive care unit (ICU) beds and respirators, which have been rendered scarce in a number of countries during the first wave of COVID-19, have been identified as among the most relevant factors (Pericàs et al., 2020).

The Hospital Clinic is a public 750-bed tertiary teaching hospital. As the COVID outbreak was spreading, the hospital had to rearrange its structure to meet clinical needs. In addition, the Health Hotel was set up to provide medical assistance for in-patients with mild COVID-19 symptoms (Pericàs et al., 2020). As soon as the hospital admissions peaked, specialised units were filled with COVID-19 patients, nurses and doctors focused on COVID-19 patients, and day care units were converted into ICUs. All these adaptations prompted a need to hire healthcare staff, especially nurses.

### 1.1. Background

The recent World's Nursing Report (2020) reveals a significant lack of nursing staff, depicting a global deficiency of 5.9 million professionals. As is the case now, nurses have always been at the forefront of the global fight against health-threatening epidemics and pandemics (WHO, 2020).

In fact, Spain has been experiencing a shortage of working nurses, which is concerning for nursing boards and organizations. In 2017, Spain had 5.7 nurses per 1000 inhabitants – one of the lowest among the OECD countries, among which the average is 8.8 nurses per 1000

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inhabitants. Nursing graduates are also on the lower side, with 21 graduates per 100,000 inhabitants in 2018; this number was 86 in Finland. In addition, the problem of nurses migrating to other countries is still relevant owing to the lack of stable open nursing positions in Spain (OECD, 2019). In 2017, more than 12,000 Spanish nurses migrated to other countries because of poor working conditions (Gea-Caballero et al., 2019). For this reason, the order issued by Spain's Ministry of Health on March 15th, 2020, offered student nurses in their last year at university and retired nurses to be employed and help the National Health System respond to the COVID-19 crisis. The basic nursing educational degree in Spain is a Bachelor of Nursing, following the European Directive (2005/36/UE) and Bologna agreement, which involves a 4-year university program with 240 European Credits Transfer System (ECTS).

The nursing workforce has required rapid worldwide expansion in a short period of time. In the UK retired nurses and undergraduate nursing students have become part of the workforce (Galvin et al., 2020).

The Hospital Clinic is a partner of Barcelona University, including about 2000 undergraduate and postgraduate training placements every year. The Subdivision of Nursing Research and Education in the Hospital Clinic contacted different universities through the coordinators of their academic programs to encourage participation of nursing students being contracted as Healthcare Aids (HAs). Of 189 candidates, 99 fourth year student nurses were hired as HAs from 25 March up until the end of June, to help nurses under their supervision. These students had already completed all the theory subjects and achieved 54 ECTS in clinical training. Their last clinical training (30 ECTS) was cancelled halfway through due to COVID-19 and they were about to graduate. This workforce was integrated with full labour conditions, benefits, a salary of € 1100 per month, and always under the supervision of a nurse. None were positioned in the COVID-19 ICUs or emergency areas. All of them received previous training in using personal protective equipment (PPE), health nursing documentation, and hospital information technology, as well as a short orientation to the hospital organization, current situation, and ward dynamics. A follow-up was held weekly in small groups and through individual phone calls. The nursing education department of the hospital and the university nursing school organised discussion sessions, listening to their experiences and concerns. They also provided emotional support and early problem detection, offering individual psychological support as needed. During this session, information was provided about the regulations, standards of care, and progress of the COVID-19 situation in the hospital.

### 1.2. Theoretical framework

Meleis (2010), developed the transition theory, which studies and understands how transitions are experienced during situations of change. In relation to transition responses, some indicators such as feeling connected, being situated, interaction, confidence development, and confrontation are described. These indicators represent a healthy transition, as well as family support and the contextualization of the phenomenon in time and space (Schumacher and Meleis, 1994). Understanding the transition experience in this case is situational (natural disaster), organizational (being hired by the hospital), and developmental (becoming a nurse). Interventions can be developed to facilitate transitions and provide support to ensure better outcomes, expertise, and minimise the impact on students' wellbeing. Hence, it is essential to understand the experiences of nursing students, especially under the unique circumstances of the COVID-19 pandemic, which could help develop better responses in future healthcare crises.

For all the above explanations, we aim to explore and understand the experience of nursing students' roles as HAs in responding to the COVID-19 crisis.

## 2. Methods

### 2.1. Design

A phenomenology design was used to explore undergraduate nursing students' perceptions of their experiences as HAs during the COVID-19 outbreak.

### 2.2. Setting and participants

The study setting was the Hospital Clinic Barcelona (Spain), a technology teaching hospital that includes specialised wards for nursing students' training. The study was conducted from April to June 2020.

Participants were fourth year students from different nursing schools in Catalonia, whose previous nursing degree clinical placement was interrupted, and who were hired as HAs.

A purposive sample of fourth year students contracted as HAs was recruited ($n = 10$) until data saturation was reached, including students from all working shifts in the hospital (morning, afternoons, and night shifts) and the Health Hotel who responded to the COVID-19 outbreak. No male student was found to meet the inclusion criteria to be included in the study; we had recruited two male participants, of which one was hired as an HA to work in a non-COVID-19 unit and the other had become infected.

### 2.3. Inclusion criteria

Fourth year students contracted as HAs working in COVID-19 units at the Hospital Clinic of Barcelona and the Health Hotel.

Signing a consent form for participation.

### 2.4. Exclusion criteria

No consent form signed.

Students infected with COVID-19 during the employment period.

Students contracted as HAs to work in non-COVID-19 units.

### 2.5. Data collection and analysis

Open face-to-face interviews were conducted in May 2020 by four researchers. For each participant, the interviews were conducted by two researchers – one asking the questions and the other collecting field notes. Meetings were previously arranged and interviews were held in meeting rooms away from the working units at the hospital to maintain privacy. Interviews were recorded in Spanish and in Catalan, both languages being the mother tongue of the participants and the interviewers. Catalan interviews were transcribed and translated to Spanish for data analysis. The open-ended questions were framed based on the literature and on the study objectives (Table 1). The interview duration was about 60 min. A sociodemographic questionnaire was completed by the participants.

Five researchers performed data analysis individually. A hermeneutic interpretative approach was used following Munhall's (2007) recommendations to understand the meanings of expressions from participants and describe their experience of the HAs during the pandemic. Once the data were analyzed individually, three meetings

**Table 1**
Open interview questions.

1. Please, describe your experience providing care as a Healthcare Aid during COVID-19 pandemic.
2. What were the positive aspects you found from this experience?
3. What were the negative aspects or barriers you found from this experience?
4. What would you change in relation to providing care if there was another pandemic?
5. How did you manage your feelings and emotions during this experience?

were held among all researchers to discuss data and reach conclusions. Data triangulation was reached after all researchers shared their results (Carter et al., 2014). Data analysis results were presented to the rest of the research team to facilitate a broader discussion and to develop the manuscript. The research group comprised nurses with expertise in academic, clinical nursing, management, mental health, and qualitative research methods.

### 2.6. Quality criteria

To assess the rigour of this qualitative research, we followed Lincoln and Guba's evaluation criteria: credibility, transferability, confirmability, and dependability. Likewise, during the research process, researchers considered reflectivity to ensure that they were aware of their prejudices and how bias can influence the research process and results (Lincoln and Guba, 2000). In addition, we followed the consolidated criteria for reporting qualitative research (Tong et al., 2007).

### 2.7. Ethics approval

This study was approved by the Clinical Research Ethical Committee "Comité Ético de la Investigación con medicamentos del Hospital Clinic Barcelona" (HCB/2020/0518). An information sheet that describe the purpose of the study was shared with participants, after which they were asked to sign a consent form prior to the data collection. This study followed the guidelines set forth in the Declaration of Helsinki (World Medical Association, 2013). Participation was voluntary and subjects were allowed to withdraw from the study at any time. All data were treated as per the UE Regulation 2016/679 of the European Parliament and the Council of 27 April 2016, relating to handling of personal data and the Organic Law 3/2018 of 5 December relating to Personal Data protection and digital rights warranty.

## 3. Results

Participants ($n = 10$) were women aged between 21 and 25 years (average age = 22.1 years), and were mainly from the University of

**Fig. 1.** Themes and subthemes of nursing students' experiences working as "Healthcare Aid".

Barcelona. They all belonged to different shifts (four in the morning shift, four in the afternoon shift, and two in the night shift). Eight of them were allocated to different hospitalisation wards in the main hospital, all of which were COVID-19 units. In addition, two participants were working in the Health Hotel.

Seven main themes emerged: learning, ambivalent emotions and adaptation were classified at a personal level; teamwork, patient communication, and unclear care processes were categorized under hospital structure; and coping mechanisms were part of external factors (see Fig. 1).

### 3.1. Theme 1: learning

For all students, this experience was highly valued because of the skills they gained. As pre-graduated nurses, they considered it an opportunity to gain real clinical experience and confidence before their employment insertion and felt that they were somehow caring for patients with a lower degree of responsibility. They felt that learning as an HA compensated for the cancelled clinical experience.

> "Probably all the apprenticeship that wasn't taken during clinical training, it was taken here".
>
> (P. 7)

They also learned about optimising equipment and adapting themselves to special circumstances.

> "I have certainly learned, I learned a lot…about how to protect myself, how to use all the equipment…the scarce material we had or what we could use, how… to use it… the minimum possible times and… also lessening contact with the patients who were very lonely, but equally ensuring that they are in good care…".
>
> (P. 2)

### 3.2. Theme 2: ambivalent emotions

Students felt a variety of ambivalent positive and negative feelings. The main positive feelings among students were **excitement,** because of the new experience, and feeling **helpful and proud** of being there.

> "In such complicated and critical situation, I think…being able of playing my small part to this situation… I think I'm always going to remember this, my entire life, by means of…when I'm very old, and to think how my beginnings were in a pandemic, and only a few people can say this…".
>
> (P. 5)

However, **uncertainty** and fear were present, especially at the beginning, when they did not know what they would find, how the team would work, and what rules they should follow.

> "At the beginning you are very cautious, see what you're going to find…You don't really know what's going to happen…".
>
> (P. 7)

**Sadness** and **anger** were reported as students observed patients alone in their rooms with no family visits; many of these patients were not able to communicate with their relatives. Students also felt **impotent** because they did not know what to do to provide the best care for their patients.

> "Willing or not, we are the only contact they have with the outside and sometimes, well, you find situations that sometimes make you feel sad. You feel you empathise so much that you place yourself on their side… Well, I am lucky and we do not realise what we have".
>
> (P. 7)

In addition, the **fear** of infection and infecting their own relatives was present among students, as they were mainly living with their parents. They usually implemented their own hygiene protocol when entering their homes. The lack of PPE was a general issue, and it was uncertain how long the stocks would last.

> "When I arrived home my parents were waiting at the door with a box for my shoes and a bag to keep all the clothes, and then I went straight to the shower. I was terrified that something would happen to them just because I started working as an HA".
>
> (P. 5)

The lack of PPEs was a general issue across the country, and this generated a significant increase in students' level of anxiety and concern. In addition, the image of the staff dressed up in full PPE gear was distressing for the patients and lacked intimacy and reassurance. Entering the room was restricted, to minimise exposure, and that generated a sense of lack of humanization.

> "When you enter a room with the PPE on, you look like a monster!" "Patients can't see the face of the person who is looking after them".
>
> (P. 5)

**Exhaustion** from working every day affected their physical and emotional conditions. These feelings were experienced negatively and caused **anxiety**.

### 3.3. Theme 3: adaptation

As time went on, students **adapted** to this situation and considered safety instructions, such as isolation and restrictions, as something natural. Somehow, the situation was normalised as routine work.

> "At the beginning I did start very anxious because it was new, by means of, starting in a new place is very complicated, adding all the inputs we received for COVID".
>
> (P. 8)

> "Now, it's like we normalised it, and it also scares me that I have normalised it, because it's like… I don't want to become cold in that aspect, we have already normalized a bit all this isolation, the fact that there are no family members coming to the hospital and all that…but this is very hard…very, very hard… but now, I come here, and I have already got used to the routine, to the situation, and I can't see it such… as the beginning".
>
> (P. 3)

### 3.4. Theme 4: team work

Becoming a member of the team was a major concern for all students. They were all very nervous on the first day, due to the uncertainty For the majority, it was a pleasant and positive experience, as bonds were made within the team and they felt welcomed. All members in the unit were working as a team and organised their shifts depending on the workload, thereby helping each other. They created strong bonds, considering that new teams comprised professionals from different units, non-clinical personnel, retired nurses, and new staff.

> "I think what I find more positive from here, is that we have all worked together all at one".
>
> (P. 7)

### 3.5. Theme 5: patient communication

Barriers to communicating with patients were identified. Patients were isolated in their rooms, and there were no visible structures to help students keep an eye on the patients. They could only communicate through the bell intercom. Students felt that it was inhumane and sad.

> "Not seeing the patient, by means of… not being able to see the patient or to open the door to see how the patient is… I think…it is not very humanised…".
>
> (P. 9)

> "If a patient arrests alone in the room, we won't even notice!".
>
> (P. 5)

Patient care was reorganised to minimise staff exposure and to avoid infections. This generated anxiety, distance, and poor humanisation because the nurse-patient interactions were diminished and visitors were prohibited.

> "They felt lonely, some people who were in their rooms. This was the hardest moment, and not knowing what to really do… Certainly when we entered in the rooms, we spoke with them and we tried… that at least they had someone to chat with, to communicate with or to explain anything. However, it is also true that we could not always be a long time with them".
>
> (P. 2)

> "A positive aspect was the inclusion of video calls with family members for elderly patients with no access to phones".
>
> (P. 2)

However, students reported that patients, especially older people, were thankful for all the work they were doing, and many of them understood the situation.

> "Older people were very nice, like, some of them told us: -You are taking such good care of us, here we are perfect, you are the best!".
>
> (P. 10)

### 3.6. Theme 6: unclear care processes

All students found that the guidelines were not clear about their role in the team and their specific tasks. Hospital protocols changed frequently, as the evidence was changing and resources were not always available.

> "I didn't exactly know what my functions were, what were my tasks…".
>
> (P. 2)

### 3.7. Theme 7: coping mechanisms

Most students had their own mechanisms to manage the emotions generated from this experience. They had a very supportive network consisting mainly of family and friends who they could talk to and share their emotions with through videoconference. They also played sports, practised yoga, and performed other activities, such as reading, which helped with their anxiety and recurrent thoughts.

> "My parents were very proud of me, not only them but my whole family", "but also worried at the same time".
>
> (P. 2)

## 4. Discussion

Fourth year nursing students hired as HAs experienced a shift in their role in a short period of time – from students to employees. HAs experienced the feelings described in Meleis' transition framework (2010) in situational, organizational, and developmental dimensions while taking care of COVID-19 patients. Students experienced developmental and organizational transitions when they became healthcare staff hired as salaried employees. Considering that they had not experienced similar situations previously, their stress increased not only due to the emergency and the magnitude of the crisis but also due to the continuous changes in the frequently updated guidelines and policies.

Moreover, what was expected of them as students is not the same as that in the workforce. This is described as a transition shock. Thus, when students approach their graduation, they lack confidence (Kim and Yeo, 2019) (Duchscher, 2009). This is why participants conceived this experience as an opportunity to improve their training, gaining confidence and skills, and taking care of patients without having full responsibility for them. Learning to deal with adversity and improving autonomy was valued.

The will to care for COVID-19 patients was an important driving force for the study participants. They felt that they were playing their part in the chaotic pandemic, which made them feel helpful and proud of being there. A study reported that Spanish nursing students showed high willingness (74.2%) to look after COVID-19 patients, although most of them (65.3%) did not feel prepared (Cervera-Gasch et al., 2020). The high clinical pressure to respond to COVID-19 made the hiring process as HAs unconventionally speedy and participants felt that the orientation period was not sufficient. Participants also felt insecure because they did not know what they could or could not do. They all suggested the need to have protocols in which the activities they were allowed to do are indicated. As novice professionals, they need to follow guidelines and instructions to feel secure (Cervera-Gasch et al., 2020; Carter et al., 2014; Benner, 1982).

Nursing students find, under normal circumstances, their clinical practice to be rather stressful (Suarez-Garcia et al., 2018). Bearing in mind the impact of the pandemic, negative emotions such as stress and anxiety were superimposed. For instance, fear of infection, especially with regard to family members, and the uncertainty of what was going to happen caused more stress and anxiety. As graduate nurses, HAs' empathy with patients arose sadness and anger, and they felt impotent because they did not know how to provide the best care for patients. However, on the positive side, emotions such as feeling helpful, proud of being there, and excitement about a new experience were common among students.

Teamwork was another important facilitator for them as they were welcomed and listened to, and they felt for the first time that they belonged to the team as professionals and not as students. The Hospital staff were united, as they were previously during the terrorist attack in Barcelona in August 2017, where 13 people died and 131 were injured. In both situations, teamwork and solidarity were beyond the usual levels observed. Communication between healthcare teams, developed feelings of solidarity, empathy, and creating solid bonds. It is expected that the value provided by such teamwork will help them recover positively from the stress that they have experienced (Olivé, 2019).

Interestingly, the participants were born after 1995 (average age = 22.1 years old), which makes them part of Generation Z, which makes them naturals at adapting to situations and adopting new values. They have lost their fear of uncertainty due to all the crises that they have lived through, and are inclusive, realistic, liberal, and always keen for opportunities (Bencsik et al., 2016). Although stereotyping may lead to misinterpretation and confusion, we could cautiously interpret each generation's perspective and uniqueness in approaching a matter in different ways (Moore et al., 2016). This should not be confused with recognizing someone's own personality – something that is not attributable to general generational characteristics (Stanley, 2010). Students

seemed to adapt to the pandemic naturally. They justify actions because of the contextual need. This can explain the *normalisation* of their approach to the pandemic's characteristics.

Communication with patients was another issue highlighted by the students. We must keep in mind that provision of the best care relies on patient-nurse relations. Caring for others requires time, empathy, attention, affection, closeness, dignity, ethics of care, and even art – all of which are not provided by machines (Watson, 2012). In the Mediterranean and family-oriented culture, patients frequently have visitors, and the doors of the patients' rooms are usually open. Certainly, this was not fulfilled as restrictions were imposed, and the workload increased rapidly. As stated by the students, having more nurses could have undoubtedly helped achieve better patient outcomes, staff safety, and, consequently, more satisfaction. HAs found communicating via videoconference very helpful (Schmitt and Lancaster, 2019). Moreover, sufficient PPEs should be available in advance, especially if new waves come along.

Hence, as facilitators to overcome stress, the students received full support from family and friends, resulting in beneficial expression of emotions. Family and social support is beneficial in achieving a healthy transition and also after traumatic experiences which may cause post-traumatic symptoms (PTS) (Tortella-Feliu et al., 2019) (Li et al., 2020). The HAs also expressed that they had their own coping mechanisms for stress and to disconnect from reality, namely running, reading, or practicing yoga. These activities may be effective in decreasing stress levels (Stubbs et al., 2017; Cocchiara et al., 2019).

These results might help universities and nursing schools prepare students for future pandemics, with simulation labs and clinical situations connecting theory and practice. This would improve the preparedness of students' skills and their emotional strategies to cope with their feelings. In addition, hospitals should strengthen their guidelines and the emotional support they provide during future pandemics.

## 5. Limitations

The findings of this study should be interpreted cautiously, as the sample was homogenous, predominantly female, and mainly drawn from one public university. Thus, findings also cannot be generalised to the whole of Generation Z. In addition, older students might have different experiences.

This study reflects the experiences of HAs in a prestigious high-tech teaching hospital in Barcelona. Experiences in other community hospitals could vary as resources may be different.

## 6. Conclusion

The COVID-19 outbreak has certainly impacted nursing students hired as HAs, both in their personal and professional lives. Ambivalent emotions were common, and the participants were excited initially, before adapting to the situation. Their first experiences as workers exposed them to the great value of teamwork while responding to the COVID-19 crisis. However, anxiety, sadness, fear, and uncertainty were also common, especially because of the lack of protocols and guidance. Orientation, follow-up, and emotional support in crisis situations are key to unexperienced healthcare workers overcoming stressful emotions; in particular, hospitals need to establish systematic guidelines for what students perceive as unclear care processes. Previous academic education and training may help novice future nurses feel more confident about their tasks and responsibilities as well as improve patient outcomes, resource management, and staff safety.

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This study received an internal fund from the Hospital Clinic of Barcelona as a COVID-19 research study.

## Ethical approval

This study is approved by the Ethics Committee of Hospital Clinic in Barcelona(HCB/2020/0518).

## CRediT authorship contribution statement

**Claudia Casafont:** Methodology, validation, formal analysis, investigation, resources, data curation, writing-original draft, writing-review and editing, visualization, project administration.

**Núria Fabrellas:** Methodology, validation, formal analysis, investigation, resources, data curation, writing-review and editing, project administration.

**Paula Rivera:** Methodology, software, validation, formal analysis, investigation, resources, data curation, writing-review and editing, project administration.

**Maria Carmen Olivé-Ferrer:** Methodology, resources, writing-review and editing.

**Elena Querol**: Methodology, resources, writing-review and editing.

**Montserrat Venturas:** Methodology, resources, writing-review and editing.

**Judith Prats**: Methodology, resources, writing-review and editing.

**Cecilia Cuzco:** Conceptualization, Methodology, resources, writing-review and editing.

**Cindy E. Frías**: Methodology, resources, writing-review and editing.

**Silvia Pérez-Ortega:** Methodology, resources, writing-review and editing.

**Adelaida Zabalegui**: Conceptualization, Methodology, validation, formal analysis, investigation, resources, data curation, writing-review and editing, supervision, funding acquisition.

## Declaration of competing interest

"None declared".

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