# RESEARCH ARTICLE



# Nursing students' experience of providing frontline COVID-19 support: A qualitative study

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# **Abstract**

Understanding the unique experience of nursing students providing frontline support in COVID-19 hospital wards is crucial for the design of strategies to improve crisis management and mitigate future pandemic outbreaks. Limited research concerning this phenomenon has been published. This qualitative study aimed to understand the experience of providing support from COVID-19 frontline nursing students' perspective. Online interviews were conducted with nine nursing students from April to May 2020; interview data were analyzed by content analysis using Burnard's method. Six main categories emerged from the data analysis: "experiencing a rapid transition from student to professional," "fear and uncertainty of the unknown," "resilience throughout the crisis," "sense of belonging to a team," "shared responsibility," and "importance of the profession." Based on these findings, multicomponent strategies that function in parallel with practical contexts should be developed to enable students to diligently adapt their abilities to their new role and cope with health crises.

#### **KEYWORDS**

COVID-19, nursing, pandemics, qualitative research, students, resilience, transition to practice

# **Key points**

- This study generated knowledge regarding the experience of nursing students providing frontline support in COVID-19 hospital wards.
- This research has contributed to clarifying the process of transition from student to professional in an exceptional situation, such as a pandemic.
- A positive organizational climate, characterized by open communication, collaborative work, and an empathetic attitude toward students, favors students becoming more resilient through feeling more confident, trusted, and part of a team.

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# 1 | INTRODUCTION

Globally, pandemics constitute one of the main threats to the security and survival of humanity (Malik et al., 2020). On March 11, 2020, the World Health Organization (WHO) declared COVID-19 a pandemic. This situation has led to a major public health crisis due to the lack of capacity, resources, and direction of health systems (The Lancet, 2020). To face this crisis, in Spain and other European countries, such as the United Kingdom or Israel, final-year undergraduate nursing students have been required to provide frontline care (Health Education England, 2020; Ministry of Health, Government of Israel, 2020; Ministry of Health, Government of Spain, 2020). This measure, although exceptional and voluntary, had already been successfully implemented more than a decade prior in Canada in the face of the influenza pandemic (Rosvchuk et al., 2008).

# 2 | BACKGROUND

Throughout the curricular practices of the degree, nursing students are prepared to transition adequately from the role of student to that of a professional, as they begin to assume responsibilities in clinical practice and to develop critical thinking skills in problem solving (Admi et al., 2018; Sharif & Masoumi, 2005). These practices, however, generate stress for these students, due partly to their inexperience and lack of uncertainty about the practice context, patient complexity, and a fear of making mistakes (Ab Latif & Mat Nor. 2019: Moridi et al., 2014; Pulido-Martos et al., 2012). Nursing students' stress levels are accentuated by the emotional challenges they experience associated with the suffering of patients and their families, the proximity to death, and the difficulty of interpersonal relationships in the work environment (Ranse et al., 2018). Moreover, during the COVID-19 pandemic, high levels of stress and anxiety related to uncertainty (De Gagne et al., 2021) associated with fear of infection have been reported (Huang et al., 2020; Savitsky et al., 2020), especially among those on the front lines (Huang et al., 2020).

The literature published in recent months reflects a growing interest in exploring the perspective of final-year nursing students in this context. A series of studies have examined the impact of the pandemic on this population's mental health (Gallego-Gómez et al., 2020; Huang et al., 2020; Rosenthal et al., 2021; Savitsky et al., 2020) and attitude toward the change to an online learning modality (Ramos-Morcillo et al., 2020; Thapa et al., 2021), as well as their contributions to social media (De Gagne et al., 2021). In addition, several studies and editorials investigating the experiences of nursing students who cared for patients with COVID-19 on the front lines have been published in scientific journals (Cervera-Gasch et al., 2020; Hernández-Martínez et al., 2021; Leigh et al., 2020; Lowes, 2020; Swift et al., 2020). However, thus far, few published research studies have explored this experience of providing care (Casafont et al., 2021; Collado-Boira et al., 2020; Velarde-García et al., 2021). A qualitative approach to understanding individual frontline experiences of final-year nursing students is crucial to support the design of educational and management strategies to improve the management

of the current pandemic and future similar outbreaks (Rosenthal et al., 2021). Thus, this study aimed to understand nursing students' experience of providing frontline COVID-19 support.

# 3 | METHODS

# 3.1 | Design

A qualitative descriptive study following the approach described by Sandelowski (2010) was conducted in several COVID-19 hospital wards on two campuses located in Pamplona and Madrid of the University of Navarra Clinic (Spain), a third-level medium-sized university hospital providing services to the Government of Navarra during the State of Alarm. A qualitative descriptive approach was implemented to allow for a closer analysis of the data, words, and events described. This approach is ideal for obtaining knowledge regarding and identifying the lived experience of final-year nursing students providing frontline care during the pandemic.

# 3.2 | Participants and recruitment

The sample consisted of nine fourth-year students of the Nursing Degree at the University of Navarra whose clinical practices had been interrupted and who had been hired as "nursing support health aides," a form of support personnel who always provide care under the supervision of a health professional. The participants completed all theoretical subjects and 65 ECTS (European Credit Transfer and Accumulation System); part of their final module of practical clinical training (20 ECTS), which covered training activities such as clinical cases and simulations, and their graduation were delayed due to the pandemic.

To access the sample, the Nursing Professional Development Area at the University of Navarra Clinic contacted the Study Coordinator of the Faculty of Nursing at the University of Navarra. Of the 46 candidates, 20 fourth-year nursing students were recruited to support the University of Navarra Clinic from March 31 to April 8, 2020, and 13 nursing students were recruited to provide support in Madrid from March 3 to May 11, 2020. The students who transferred to the University of Navarra Clinic on the Madrid campus were given accommodations in several hotels provided to the Community of Madrid to host health professionals. The researcher who conducted the interviews contacted, through the coordinator, those students who had been hired and who showed interest in participating in the study. The same person sent an email to those who provided their contact details and wanted to participate. After obtaining students' permission, the researcher explained the project and made interview appointments.

Purposive sampling was applied to ensure that the participants provided key information about the phenomenon explored. In addition, the snowball technique was used by asking participants to invite other classmates to participate in the study. Students who had provided support in a COVID-19 ward at one of the two centers, during

any shift (morning, afternoon, or night), and who had agreed to volunteer to participate in the study were included.

# 3.3 | Data collection

Semi-structured interviews were conducted virtually with each student by one member of the research team between April and May

# **TABLE 1** Thematic guide

- Tell me about your experience as a nurse during this period.
- What have been the main challenges you have faced during the COVID-19 pandemic in your care work? Why?
- How have you faced these challenges?
- What barriers have you encountered in responding to the needs of your work? And facilitators?
- What strategies have you used to manage the crisis for yourself? with the team? and with the patient?
- What has everything you have experienced meant to you?
- What are the main lessons you have learned in this period?
- From your experience during the pandemic, what aspects of Nursing would you highlight?
- Before ending the interview, would you like to tell me something else I
  have not asked you that is important to you?

**TABLE 2** Sociodemographic data (n = 9)

	Range (years)
Age	20-22 years
Professional experience (hospital, childcare or eldercare)	3-4 years
	n (%)
Gender	
Female	89%
Male	11%

2020. The interviews were recorded and transcribed verbatim, and lasted between 30 and 60 min. The thematic guide used was developed based on a review of the literature on other pandemics (Table 1). In addition, field notes were taken on aspects that could complement the data obtained through the interview and to collect participants' sociodemographic data to help better understand and contextualize each interviewee (Table 2). Students were recruited until sufficient experiential material was available for in-depth descriptions and the new data collected were found to be redundant, thereby ensuring data saturation (Procter & Allan, 2012).

# 3.4 | Data analysis

The thematic content analysis of the data used the method proposed by Burnard (1996). This analysis consists of repeatedly listening to the participants and reading the transcripts to understand the meaning of participants' expressions and descriptions of their experience during the pandemic. This process was carried out by the first and last authors first independently and then jointly. Codes or labels capturing the statements, words, descriptions, and concepts expressed by the participants were generated. Then, these codes were grouped and regrouped into general themes (i.e., thematic categorization). Finally, the distinctive characteristics of each theme were identified and described to identify constructs until the final themes integrating all informants' perspectives were formed (see Table 3). These final phases of the analytic process were discussed and agreed upon by the entire research team. NVivo VS 20 software was used to organize the qualitative data.

# 3.5 | Rigor of the study

To ensure study quality, the criteria described by Lincoln and Guba (2000) for credibility, consistency, transferability, and confirmability were used (Table 4). The Consolidated Criteria for Reporting

**TABLE 3** Themes and subthemes extracted from the qualitative data and examples

Themes	Examples of coded phrases
Experiencing a rapid transition from student to professional	It was like a very rapid evolution. (NS1) First work experience and in this way so fast, with hardly any time to assimilate it. (NS1) It was like very fast From being here in Pamplona doing my internship to working at ICU in Madrid. (NS5)
2. Fear and uncertainty of the unknown	What scared me the most was what I was going to see, how I was going to react. (NS4) Fear and uncertainty as to what you were going to find behind the door of each room. (NS7) I had the uncertainty created by the media and the news. (NS8)
3. Resilience throughout the crisis	If I ever got down, I have to move on, especially for the patients; they need me. (NS6) Being able to discuss it with your colleagues it helped me a lot to cope with the situation. (NS5) Being able to work in a good work environment has helped me a lot to cope better. (NS8)
4. Sense of belonging to a team	As the days went by you felt like one of the team. (NS5) In these situations it is essential to be part of a team and to be all coordinated. (NS5)
5. Shared responsibility	Although I was there to help in that sense it was a shared responsibility. (NS2) I felt that, although I had responsibility for what happened, that responsibility was shared. (NS5)
6. Importance of the profession	I realized the power of our profession. (NS5) Living such an extreme situation has meant an important change in the profession (NS6)

TABLE 4 Quality criteria (Lincoln & Guba, 2000)

Criteria	Procedures
Credibility (obtaining truthful information)	<ul> <li>Verbatim transcripts of interviews.</li> <li>Search the text for textual evidence to support findings.</li> </ul>
Consistency (the possibility that another researcher can replicate the study)	<ul> <li>Detailed description of participants' characteristics and their inclusion and selection criteria.</li> <li>Detailed description of all the stages of the research process, the results and decisions taken during research, justifying their rationale.</li> </ul>
Transferability (the degree to which results can be applied to other subjects or contexts)	<ul> <li>Each individual's perceptions are unique, and the meanings behind them are shared.</li> </ul>
Confirmability (objectivity of the data)	<ul> <li>Separate and pairwise analysis of the data.</li> <li>The interpretive (narratives) results have been compared with some of the participants (two students).</li> </ul>

Qualitative Research (COREQ) checklist was used for the reporting (Tong et al., 2007). Likewise, throughout the process, the researchers considered their own reflexivity, being aware and reflexively self-critical of how their possible assumptions and biases could influence the process and the results. The research team consisted of nurses with health care experience (MV-C, CR-C, MO-L, ER-M), academics (MV-C, MO-L), and management staff (MV-C, CR-M) with experience in qualitative research methods.

# 3.6 | Ethical considerations

The study participants received verbal and written information regarding their voluntary participation, data confidentiality, and anonymity, and the use of their data for scientific purposes. Participants gave signed consent before the interview. The research was approved by the Research Ethics Committee of the University of Navarra (code 2020.155) and by the University of Navarra Clinic's management team, and was performed in accordance with the criteria of the Declaration of Helsinki (World Medical Association, 2013).

# 4 | RESULTS

The sample consisted of people aged 20–22, 89% of whom were female (n = 8). Six key categories emerged from interview analysis: (i) experiencing a rapid transition from student to professional; (ii) fear and uncertainty of the unknown; (iii) resilience throughout the crisis;

(iv) sense of belonging to a team; (v) shared responsibility; and (vi) importance of the profession. The quotation data are codified with labels consisting of the letters *NS* plus the number assigned to the interviewed nursing student.

# 4.1 | Experiencing a rapid transition from student to professional

This theme refers to the lived experience of participants transitioning from student to professional and from the academic setting to the clinical environment. This transition was characterized by its suddenness, prompted by the pandemic, and insufficient time to assimilate or prepare for the change. This short period involved an adaptation process that, based on participants' reports, comprised five phases: (i) perceived fear of moving away from usual sources of support (family, friends, and university); (ii) loss of reference points (teachers); (iii) frustration and helplessness at not knowing how to help and feeling "in the way" or "a burden"; (iv) adaptation to a new situation as a professional; and (v) a feeling of satisfaction and personal and professional growth. In this last phase, participants came to feel that they were useful and had learned both self-awareness and useful strategies for working within a team and with patients, thereby feeling capable of transitioning from student to professional.

It was like a very rapid evolution.... We went from the fear of being away from my family, friends, university ... to the frustration and helplessness of not knowing how to help, from frustration to finding our place as professionals and ... we finally were satisfied with ... feeling useful. (NS1)

First work experience and in this way... so fast, with hardly any time to assimilate it.... We suddenly finished the practices haphazardly ... and before we knew it, we already had a contract.... At first, we were afraid of not having our loved ones nearby ... then we felt helpless not knowing what to do,... over time, I have become more self-reliant. I have learned a lot, not only on a technical level but also on a human and personal level. ... I have learned communication strategies ... to know myself, how I work under pressure, what my attitude is towards the rest of the team. (NS5)

# 4.2 | Fear and uncertainty of the unknown

This theme recurred in all the interviews and referred to the fear of the unknown related to the disease and the uncertainty about the tools available to deal with it. Participants expressed fear due to the situation and anguish and apprehension about what they would encounter and how they would react. This fear was unrelated to infection, as they received weekly briefings on the new containment measures for COVID-19 by a committee composed of a multidisciplinary team of specialists. In addition, they had material resources and received training for the proper application of the protocols and usage monitoring by the supervisor. Nonetheless, the feeling of uncertainty reflected participants' lack of security or confidence about whether they would be able to cope with the situation.

I was a little scared by the situation we might find, not so much because of getting infected ... we were continuously informed ... of the new prevention measures for COVID-19; there was a committee of different specialists [COVID-19 Control Committee] updating us every week ... the supervisor was also on top of us, making sure we were not lacking anything ... and that we used the protocols correctly. They trained us at the beginning on how to use PPE [personal protective equipment]. What scared me the most was what I was going to see, how I was going to react. (NS4)

Fear and uncertainty as to what you were going to find behind the door of each room ... I didn't know what I was going to face or how I was going to cope with it ... I wasn't nervous about the contagion. (NS7)

# 4.3 | Resilience throughout the crisis

Resilience during the crisis consisted of the students' ability to overcome the adverse situation posed by the pandemic and emerge stronger. All participants showed two characteristics enabling their resilience: a sense of responsibility and persistence. The sense of responsibility was motivated by the patients' situation, which made participants aware of their role, the need to do their best, and the potential positive impact of their actions. Persistence meant they were able to keep going, despite the difficulties, as reflected in the following quote:

If I ever got down, I would say to myself, we are all the same, and I have been trained for this. It is my responsibility. I have to trust myself ... I have to move on, especially for the patients; they need me ... and seeing the results, that the patients were improving, was an encouragement to say I have to do it and I am doing it well and ... I have to continue on this path. (NS6)

The students also discussed the barriers and facilitators to overcoming this situation and emerging stronger. Among the main barriers were the lack of time to "be" with the patient and the chaos of the crisis, which made coping with the situation difficult. The lack of time to be with the patient included the lack of time both to stay in the room and to engage in conversation and active listening. The chaos of the crisis was generated by the disorganization of services in terms of material resources and the distribution of patients.

It was a situation in which there was no time.... It was a challenge for everyone to be able to help them [the patients] and let them feel heard. (NS1).

The situation at the beginning was a bit chaotic ... we were in a postanesthetic resuscitation unit recently set up as an ICU ... there was no order at the supplies level; there was almost no order at the patient level.... That can make it a bit difficult to cope with the situation.... Also, I have suffered much by not being able to have time to dedicate to the patients ... not having time to ask them how they are, spending more time with them in the room. (NS2)

Students repeatedly emphasized two facilitators of resilience during the crisis: peer relationships and organizational climate. Being able to share lived experiences of the pandemic, such as the death of a patient or their grief in an extraordinary situation, with other students helped them cope with the situation. In this way, they established a reciprocal relationship of emotional support, in which they let off steam, expressed themselves honestly or even displayed their feelings, as illustrated in the following quote:

Having colleagues close by, even though we weren't together on shifts, has been ... being able to arrive at the hotel and share your day ... knowing that the other person will understand you because they are in the same situation as you ... if I needed to cry, I wept... to be able to vent.... For example, you might have experienced the death of a patient, and you felt like going to your room to cry ... seeing the family member who could only come in for a second to see the patient ... without being able to watch over the dying person because of the situation ... that particularly hurt me ... then arriving and being able to discuss it with your colleagues while maintaining professional secrecy ... it helped me a lot to cope with the situation. We helped each other. (NS5)

The positive organizational climate that prevailed in caregiving was favored by open communication, collaborative work, and an empathetic attitude toward the students, which made them feel more confident and trusted, thereby helping them cope with the situation.

Being able to work in a good work environment has helped me a lot to cope better, by feeling more confident.... There was a very good atmosphere in the team and a great deal of collaboration.... It's been great because they have helped me very much; they put themselves in your situation and trusted you a lot. (NS8)

The nurses were very nice; they explained everything to you, so ... and then well, they gave you a vote of confidence ... go and if you don't know how to do something, come and ask! It was a joy to work like that. That helped me to cope better.... I liked that after finishing with the patients, instead of sitting down to write,... well, always... do you need anything? Can I help you? They were always available. (NS7)

# 4.4 | Sense of belonging to a team

Another theme participants repeatedly expressed was the feeling of belonging to a team. The students noted that it was key to identify with the other team members to share experiences and emotions and the common goal of providing the best patient care to perform their work better.

As the days went by ... you felt like one of the team, and I was very grateful for that because it is important to be comfortable in your work environment in these situations to be able to work better ... that they would trust you is something to be grateful for because we had no experience and they treated us like a team member.... In these situations, it is essential to be part of a team and to be all coordinated so everything goes well and the patient is well cared for. (NS5)

# 4.5 | Shared responsibility

Most students indicated having shared responsibility with more experienced nursing staff. This co-responsibility occurred both in contexts where the patient was critical, requiring someone to supervise their care at all times, and in the ward, where the condition of a patient could rapidly deteriorate, and participants had to assume responsibility with another colleague for assessment and early detection.

I had very good colleagues who explained to me and who understood that, although I was there to help ... in that sense it was a shared responsibility.... I was not the only one responsible.... Responsibilities were highly respected. (NS2)

I could not overlook anything to avoid harming the patient, so I shared any issues with my oncology colleagues, who were not used to this type of patient either.... I felt that, although I had responsibility for what happened, that responsibility was shared. (NS5)

# 4.6 | Importance of the profession

Finally, nursing students reported that the pandemic made them aware of the importance of the profession, both for themselves and for patients and society in general. In particular, they pointed out the power of the profession to create change in any health-disease process of patients and their families, both in health promotion and patient suffering. Likewise, they reflected on the impact of living through such an extreme situation on the recognition and visibility of the nursing profession.

I remember a patient who had to be taken down to the ICU ... it occurred to me to tell him ... don't worry, everything will be fine,... this patient returned to the ward and told me, X you don't know how much those words helped me ... you were like an angel.... So, when the patient told me that, I realized the power of our profession, that we hold people's lives in our hands, what we can change with our words. There I grasped the importance of the nursing profession, of accompanying patients in good and bad times ... both in health promotion and in the mourning of patients and their families. (NS5)

Living such an extreme situation has meant an important change in the profession. We have shown what we are made of, as all of Spain has realized ... this has helped me to know my worth as a nurse, what my colleagues are worth. (NS6)

# 5 | DISCUSSION

This study generated knowledge regarding the experience of nursing students providing frontline support in COVID-19 hospital wards. Data analysis revealed this experience as one involving rapid transition from student to professional, fear and uncertainty in the face of the unknown, resilience throughout the crisis, the sense of belonging to a team, shared responsibility, and the importance of the profession.

The findings of this research have contributed to clarifying the process of transition from student to professional in an exceptional situation, such as a pandemic. This process is characterized by the rapid sequence of five phases: (i) perceived fear of moving away from usual sources of support; (ii) loss of reference points; (iii) frustration and helplessness at not knowing how to help and feelings of being "in the way" or "a burden"; (iv) adaptation to the new situation as a professional; and (v) a feeling of satisfaction and personal and professional growth. The duality of feelings identified throughout this process is consistent with previous studies describing the transition from student to professional as an experience of ups and downs, characterized by feelings of both frustration and satisfaction (Kaihlanen, 2020; Kaihlanen et al., 2018). Moreover, the findings regarding the sequence of the phases partially coincide with the assumptions defended by Schoessler's theory of transition stages

(Kaihlanen et al., 2018). This theory postulates that the transition from student to nursing professional occurs in three main stages: (i) approaching the transition; (ii) evaluating the situation to cope with it; and (iii) completing the transition, which resembles the process identified in this study. The first three phases identified herein would be grouped into the first stage of the process defined in Schoessler's theory (Schoessler & Waldo, 2006), with the second and third stages corresponding to the last two phases. In contrast to this theory, we found the transition from one phase to another, as driven by the pandemic, to be rapid.

In the last two described phases of the transition process, students' ability to overcome the adverse situation of the pandemic and emerge stronger is also evident. This resilience derived from two student attributes: a sense of responsibility for the patient and persistence. In light of these findings and based on suggestions by several theorists that resilience in the context of COVID-19 can be learned (Shaw, 2020; Taylor et al., 2020), it is suggested to teach both competencies to prepare students for future pandemics, for example, through narratives, simulation, or role modeling (Taylor et al., 2020). In the same way, based on this research, it is recommended to incorporate effective coping strategies, such as with sharing lived experiences with other students, for example, or with the death of patients or their mourning.

The findings of this study, in addition to having interesting implications for the academic context, provide key evidence for practice. The results reveal that a positive organizational climate, characterized by open communication, collaborative work, and an empathetic attitude toward students, supports students' resilience by helping them feel more confident, trusted, and part of a team. These results are consistent, in part, with those obtained in a similar study conducted in Spain and published recently, in which students were highly accepted by care teams during the pandemic (Casafont et al., 2021). This positive reception of students by care teams can be attributed to the context because emergencies encourage professionals to assume other types of interprofessional collaboration dynamics that differ from the daily dynamics (Reeves et al., 2010).

Another significant finding, which has also been reported in other studies (Collado-Boira et al., 2020; Huang et al., 2020), was fear and uncertainty in the face of the unknown, motivated by participants' insecurity regarding their ability to cope with the situation, both personally and professionally, partly because of the interruption of their final-year practical training. In this study, this insecurity was overcome after becoming familiar with the environment and the situation during the last two phases of the transition process. Unlike other studies (Collado-Boira et al., 2020; Huang et al., 2020; Savitsky et al., 2020), in this study, students explicitly stated that the fear of being infected was one of the aspects that concerned them the least. This fact may be due to the sociodemographic characteristics of the sample, which could influence this perception, as well as organizational factors, because, as the participants point out, these were organizations that had a COVID-19 control committee that reviewed the pandemic containment measures weekly, updated the procedures according to the evolution of the pandemic, and communicated such changes to all

professionals. In addition, they had material resources, received training for the proper application of protocols, and were monitored by unit supervisors.

Finally, of particular importance is the positive impact, through providing frontline support in COVID-19 hospital wards for the nursing students in this study, of strengthening the value of nursing professionals and their recognition and visibility. This finding, which is partially consistent with previous studies (Huang et al., 2020; Leigh et al., 2020; Lowes, 2020), may be associated with the support students felt at all times through sharing the responsibility of care, their experiences among peers, and common goals with the entire team to provide the best patient care.

This study has important implications for nursing education. In particular, it has shown the potential benefits for future graduates if, during their undergraduate education, they are given guidance on the stages and experiences they will experience in their transition to becoming professionals. In this regard, for instance, they could be trained in coping strategies to become more resilient and better respond to a crisis or future health disasters. Furthermore, in relation to nursing management, this study has highlighted the need for organizations and unit managers to encourage teams to work collaboratively and to promote open communication and a positive working environment. Such environments will help both students and new employees feel more welcome and supported by the staff.

# 5.1 | Limitations

As a limitation, this qualitative research collected the experiences of finalyear nursing students in two specific health care contexts. Therefore, the findings are relevant to the contexts in which the study took place and to the perceptions of a limited number of participants. However, the findings of this study are not intended to be generalized but rather to provide indepth knowledge about the reality perceived by the students included in the study. Therefore, it would be advisable to develop similar research in other contexts to improve the understanding of the phenomenon.

# 6 | CONCLUSION

This study has provided evidence on the experiences of nursing students during the COVID-19 pandemic. This knowledge, which is crucial for the design of educational and management strategies to improve the management of the COVID-19 crisis and similar future pandemic outbreaks, needs to be further deepened by conducting new qualitative studies in other contexts. Preliminarily, we propose the development of multicomponent strategies dealing with both the contexts of practice and students' abilities to adapt diligently to their new role and cope with health crises.

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# **CONFLICT OF INTEREST**

The data presented in this manuscript are original and are not under consideration elsewhere. In the present work, we do not have any conflicts of financial interest.

# **AUTHOR CONTRIBUTIONS**

Study design: Mónica Vázquez-Calatayud, Carmen Rumeu-Casares, Maddi Olano-Lizarraga, and Elena Regaira-Martínez. Data collection: Mónica Vázquez-Calatayud and Elena Regaira-Martínez. Data analysis: Mónica Vázquez-Calatayud and Elena Regaira-Martínez. Manuscript writing: Mónica Vázquez-Calatayud, Carmen Rumeu-Casares, Maddi Olano-Lizarraga, and Elena Regaira-Martínez.

# DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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