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The challenges of “learning on the go”: A qualitative study of final-year Spanish nursing students incorporated to work during the first Covid-19 pandemic

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ABSTRACT

Background: The first wave of the COVID-19 pandemic caused a shortage of qualified nurses in Spain. As a result, the government authorized the hiring of senior students.

Objectives: To explore the perspectives of a group of final-year nursing students who were hired on the basis of a relief contract for health professionals during the first COVID-19 outbreak, regarding their learning process and their mixed role as students and novice nurses.

Design: A qualitative exploratory study was conducted.

Settings: The Nursing Department of the European University of Madrid, and the Red Cross College of Nursing.

Participants: Eighteen nursing students were recruited, aged between 18 and 65 years old, enrolled in the fourth year of Nursing Studies and who were hired under a relief contract for health professionals during the pandemic.

Methods: Purposive sampling was used. Semi-structured, in-depth interviews were carried out using a question guide. Interviews were conducted in a private video chat room platform. Also, a thematic, inductive analysis was performed. This study was conducted according to the Consolidated Criteria for Reporting Qualitative Research and the Standards for Reporting Qualitative Research.

Results: Four specific themes emerged: a) The students’ role during the relief contract; b) The learning process during the pandemic; c) Barriers to learning; and d) A unique learning opportunity. The students had an undefined mixed role, which hindered their skills and activities. Learning was self-directed, sometimes through trial and error, and through experiencing critical events. Time constraints and having to learn under pressure were experienced as difficulties for learning. Nevertheless, this was a unique professional learning opportunity. The students learned to be organized and effective, acknowledge their limitations, gain confidence, face their fears, and mature.

Conclusions: These results can help inform nurse training programs and improve the organization and incorporation of nurses in health care facilities during the COVID-19 pandemic.

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1. Introduction

The world is facing an unprecedented health crisis caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), known as COVID-19, a new ribonucleic acid coronavirus identified in Wuhan, China in December 2019 (Zhu et al., 2020). On March 11, 2020, the WHO declared a global pandemic for COVID-19 (World Health Organization, 2019). The rapid global spread caused health systems to be overwhelmed (García-Castrillo et al., 2020).

1.1. Background

In Spain, the peak of the pandemic occurred between 24 March and 9 April 2020, putting the response capacity of the national health system to the limit (García-Castrillo et al., 2020; Ministerio de Sanidad y Consumo, 2020). Simultaneously, the high number of infections, the strenuous working conditions, the emotional and psychological impact during the pandemic, resulted in many health professionals having to be isolated, or removed from service, reducing the number of nurses (Lai et al., 2020; Nagesh and Chakraborty, 2020; RENAVE, 2020). In Spain, the National Network of Epidemiological Surveillance, confirmed 40,961 cases of COVID-19 among health professionals (RENAVE, 2020). Based on Order SND/232/2020, of March 15, the Spanish Government adopted measures to manage human resources and the health crisis, reinforcing the health workforce with 50,000 new incorporations, of these, it was estimated that 10,200 would be nursing students in their final year (Spanish Government, 2020a).

As a result, many nursing students in the senior year of nursing (year four), entered the hospital workforce, under a contract known as the “health professional relief contract” (Spanish Government, 2020a; Monforte-Royo and Fuster, 2020). This possibility has been studied in other countries such as England, however, there were difficulties in establishing where the line was drawn between acting as students in training or being health workers (Swift et al., 2020; Hayter and Jackson, 2020). In addition, the nursing students were inexperienced in dealing with pandemics, disasters, and emergencies in the presence of critically ill patients and high mortality rates (Hayter and Jackson, 2020; Monforte-Royo and Fuster, 2020). Furthermore, the Spanish students, who were hired under a relief contract, continued their senior year nursing studies simultaneously, which may have influenced their learning (Monforte-Royo and Fuster, 2020) due to the psychological and physiological demands of working during the pandemic (Galehdar et al., 2020; Algummeen et al., 2020), and for having to adapt to the change from face-to-face teaching methods to online teaching (Ramos-Morcillo et al., 2020). Another key aspect is the transition from the role of student to that of nurse, with specific competencies (García-Martín et al., 2020). During the pandemic, the role and competencies of nurses has undergone a change (Abuhammad et al., 2020; Weiss et al., 2020; David et al., 2020; Oliveira et al., 2020). Therefore, it is necessary to know which elements influence the learning of student nurses holding a relief contract (Monforte-Royo and Fuster, 2020), with a role that includes functions of both student and novice nurses (García-Martín et al., 2020).

In particular, this situation affects frontline services which are having to face COVID-19, such as emergency departments and Intensive Care Units (ICU) (García-Martín et al., 2020; Tan et al., 2020; Liu et al., 2020).

In Spain, previous studies (an editorial letter and two original studies) reported the voluntary incorporation of final-year nursing students into the health system during the COVID-19 pandemic (Casafort et al., 2020; Collado-Boira et al., 2020; Monforte-Royo and Fuster, 2020). Collado-Boira et al. (2020) showed that fear is the main theme in students’ experience (fear to the risk of infection, of the risk of infecting their family, related to the disorganization of the health system and the lack of personal protective equipment, and finally, fear of being unprepared and having to cope and manage difficult situations). However, to the best of the author’s knowledge and based on an extensive literature search, this is the first qualitative study describing the learning process and mixed role (student and novice nurse role simultaneously) perceived by final-year nursing students who participated with health professional relief contracts during the first COVID-19 outbreak. This study can help to reorganize and suitably adapt how health sciences are taught (Kim et al., 2020), and how nursing education is provided during the pandemic (Haslam, 2020; Backes et al., 2020; Pereira et al., 2020).

The purpose of this study was to explore the experience and perspective of a group of final-year nursing students who were engaged in a relief contract for health professionals during the first COVID-19 outbreak regarding their learning process and mixed role (as student and novice nurse).

2. Methods

2.1. Design

A qualitative exploratory study was conducted based on an interpretive framework (Carpenter and Suto, 2008; Korstjens and Moser, 2017). This study was conducted according to the Consolidated Criteria for Reporting Qualitative Research (Tong et al., 2007) and the Standards for Reporting Qualitative Research (O’Brien et al., 2014).

2.2. Ethics

The present study was carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans. The study was approved by the Local Ethical Committee of Universidad Rey Juan Carlos (URJC 2305202012320). All participants provided oral informed consent prior to their inclusion.

2.3. Research team and reflexivity

Prior to the study, the researchers’ positioning was established via two briefing sessions addressing the theoretical framework for this qualitative study, their beliefs, and their motivation for the research (Tong et al., 2007). Eleven researchers (six women) participated in this study, including nine nurses and two physical therapists (CFdIP, PMLM). All researchers had experience in research in health sciences.

2.4. Context and setting

This study was conducted at the Nursing Department of the European University of Madrid and at the Red Cross College of Nursing in Madrid (Spain). In Spain, the nursing degree is included in The European Higher Education Area, which unifies and regulates university degrees in 48 European countries (known as The Bologna Process) (European Commission, 2021). The nursing degree in Spain is a four-year course that includes 90 external clinical practice credits with at least 2025 h of training at health centers. Of the total number of practicum hours, 50% are completed in the fourth year, in critical care, the emergency department, maternity or operating room units, and may vary according to the curriculum of each university (Spanish Government, 2008). This means that at the beginning of the pandemic, students had only performed five months of clinical practice (from October 2019 to February 2020), and many had not yet undergone placements in units such as the ICU or emergency room. However, these units are considered the frontline during the pandemic and required reinforcement with new professionals (Monforte-Royo and Fuster, 2020). In addition, the students could not register as nurses because they did not hold a degree in nursing.

2.5. Sampling strategies and participants

The inclusion criteria consisted of nursing students from the Red
Cross College of Nursing and the European University of Madrid (UEM) (Spain), who were in their fourth year of nursing studies during the first COVID-19 outbreak, and who accepted to work under a relief contract for health professionals during the pandemic. Finally, eighteen nursing students, aged between 21 and 31 years old, were recruited between March 18 and June 15, 2020.

Purposive sampling methods were used based on relevance to the research question (not clinical representativeness) (Moser and Korstjens, 2018). Thus, the researchers selected the individuals and sites of study as this provided them with essential insight regarding the problems faced (Creswell and Poth, 2018). Participants who met the inclusion criteria were included. Sampling and data collection continued until information redundancy was achieved, at which point no new information emerged from the data analysis (Carpenter and Suto, 2008; Moser and Korstjens, 2018; Creswell and Poth, 2018). In our study, this was occurred after the inclusion of 18 participants. There were no dropouts.

2.6. Data collection

Semi-structured, in-depth interviews were conducted, including open questions, to obtain information regarding specific issues of interest (Moser and Korstjens, 2018). After collecting professional and personal data from each subject, a question guide was used (Table 1. Question guide).

Thereafter, the researchers listened carefully, noted the key words and topics identified in the students' responses and used their answers to ask for and clarify the content (Creswell and Poth, 2018; Carpenter and Suto, 2008). This enabled relevant information to be collected from the students' perspective.

Due to the lockdown situation in place in order to flatten the COVID-19 curve and established by the Spanish Government on 14th March 2020 (2020b), interviews were conducted in a private video chat room using the videoconference platform Microsoft Teams (Archibald et al., 2019; Hernán-García et al., 2020).

Each participant received a private/personalized email with an invitation to the interview (Table 2 shows the specific procedure followed for the interviews using the Microsoft Teams platform).

With the participant’s oral permission, all interviews were audio- and video-recorded in order to access non-verbal cues such as eye contact, facial expressions, or body motions, which are considered unique data resources for qualitative studies. All interviews were transcribed verbatim. In total, 511 min of interviews were recorded (with a mean duration of 46.45 ± 9.44 min per interview).

Additionally, field notes were also collected by the researchers during the semi-structured interviews, since field notes provide a rich source of information for describing participants’ behaviors during data collection, of noting personal reflections concerning methodological aspects of the data collection (Creswell and Poth, 2018).

Confidentiality was ensured by consecutively numbering each interview and removing identifying information from the transcripts. All audio recordings and transcripts were saved on a password-protected computer with restricted access and deleted one month after the analysis.

2.7. Analysis

The full verbatim transcripts of each interview, the researchers’ field notes and their descriptions were all collated to perform a qualitative analysis (Creswell and Poth, 2018; Miles et al., 2013). A thematic, inductive analysis was performed. The thematic analysis consisted of identifying the most descriptive content to obtain codes, and subsequently reduce and identify the most coded groups (categories). Groups of meaningful codes were subsequently formed (i.e., similar points or content that allowed the emergence of the topics that described the participants’ experience) (Miles et al., 2013). This thematic analysis process was performed separately to the semi-structured interviews. Subsequently, joint meetings were held to combine the results of the analysis, to represent the participants’ experience (Moser and Korstjens, 2018). In cases of potential discrepancies, theme identification was based on establishing a consensus between the research team members. No qualitative software was used to analyze the data.

2.8. Quality criteria

The techniques performed and application procedures used to control trustworthiness (Creswell and Poth, 2018; Krostjens and Moser, 2018) are described in Table 3.

3. Results

Eighteen nursing students (17 women) who worked under a relief contract for health professionals, with a mean age of 23.7 years (SD 2.96) and a mean previous health work experience (nurse assistant) of 1.95 years (SD 2.82) were included in the study. The mean time that they had been performing “health support” services was 1.83 months (SD 0.53). The duration of the contracts was between 1 and 3 months depending on the needs of each center. Seven of the participants worked in emergency services, five in ICU, and six in hospitalization units (internal medicine and surgery).

Table 1

| Research areas                | Questions                                                                 |
|------------------------------|---------------------------------------------------------------------------|
| Experience with the relief contract | What has your experience been during the COVID-19 pandemic? What has been most relevant for you? |
| Role as a student and novice nurse | What has been the role that your involvement in pandemic care? How has your role been as a student? And as a novice nurse? What has been the most relevant aspect? |
| Role within the interdisciplinary team. | What role have you played in the team of professionals? What has been most relevant? Have you found facilitators or barriers in your integration to the team? |
| Learning process | How has your learning been during the COVID-19 pandemic? What has been most relevant to you? What critical moments or events, do you think, have been key to your learning? Why? |
| Combining studies with work | What has your experience been when combining your studies in the last year, with work in the pandemic as a health professional? What has been the most relevant aspect? |

Table 2

| Interview procedure using Microsoft Teams Video Communications. |  |
|---------------------------------------------------------------|---|
| 1. On the specified day and time, the participant and researcher both clicked on the Microsoft Teams (2021) link to enter the private video chat room. |  |
| 2. The researcher shared the screen with the participant to review the informed consent form together, ensuring participant understanding. |  |
| 3. After verbal consent was provided, all participants were offered a copy of the consent form by email. |  |
| 4. The researcher asked participants for permissions to audio and video record the interview. After obtaining consent, recording began. If a participant declined to be recorded on video, only an audio recording was obtained. |  |
| 5. The researcher asked the participant for their personal and academic-professional data. |  |
Table 3
Trustworthiness criteria.

| Criteria          | Techniques performed and application procedures |
|-------------------|--------------------------------------------------|
| Credibility       | Investigator triangulation: each interview was analyzed by three researchers. Thereafter, team meetings were performed in which the analyses were compared and categories and themes were identified. Participant triangulation: the study included participants belonging to different Universities. Thus, multiple perspectives were obtained with a common link; their learning process and mixed role (student and novice nurse) during the first COVID-19 outbreak. Triangulation of methods of data collection: semistructured interviews were conducted and researcher field notes were kept. Participant validation: this consisted of asking the participants to confirm the data obtained at the stages of data collection. All participants were offered the opportunity to review the audio and/or video records to confirm their experience. None of the participants made additional comments. |
| Transferability   | In-depth descriptions of the study performed, providing details of the characteristics of researchers, participants, contexts, sampling strategies, and the data collection and analysis procedures. |
| Dependability     | Audit by an external researcher: an external researcher assessed the research protocol, focusing on aspects concerning the methods applied and study design. Additionally, an external researcher specifically checked the description of the coding tree, the major themes, participants’ quotations, quotations’ identification, and themes’ descriptions. |
| Confirmability    | Investigator triangulation, participant triangulation, and data collection triangulation. Researcher reflexivity was encouraged via the performance of reflexive reports and by describing the rationale behind the study. |

Four specific themes emerged from the material analyzed: a) The student’s role during the relief contract; b) The learning process during the pandemic; c) Barriers to learning; and d) A unique learning opportunity. We reported some of the participants’ narratives taken directly from the interviews.

3.1. The students’ role during the relief contract

Students who participated in the pandemic with the relief contract, at the onset, had expectations about their role, competencies, and functions, such as working in clean areas with non-COVID-19 patients, receiving support and supervision from senior nurses, and, in the event of contact with COVID-19 patients, they expected that they would not be alone and would not have direct or close contact with those patients.

Initially, our participants were unaware of their competencies - and what activities they were going to perform, since there were no precedents. They wanted and had to help, however, no one knew what they could do or what the limitations to their duties were. It was unclear whether the care provided would be as a student or as a professional: “I felt like I was in no man’s land when I got to the ICU, I didn’t really know if I was a student, if I was a support person, if I was a nurse or a nurse assistant. I didn’t really know what the mission was.” (P6). The students perceived the same sensation in the registered nurses, who were unaware of the competences of the relief contract, along with the legal responsibility associated with their role.

The high burden of care duties and the increasing need for nurses forced a change in role and competencies, as a result, the students automatically became registered nurses: “when we arrived at the ICU the supervisor told us our mission was not that of a student, we were just another nurse, it was like going to war, we were going to be responsible for our patients from minute one.” (P18).

This new role as nurse was accompanied by recognition by the rest of the team and having to take on new tasks and responsibilities as a nurse in frontline units of COVID-19 care, such as the emergency room or ICU: “They told me that I was not a student, but just another colleague. My workload was the same as theirs, it didn’t matter that I didn’t have a degree.” (P1).

The students narrate how there was a great difference in their responsibilities in the different units, sometimes they were considered “students”, other times they were required to be registered nurses. This caused unease, due to the risk of exposure to the infection despite their low salary: “Some colleagues at the university only handled medication, without having to touch any patients, and I was the fool who went to the ICU, who exposed myself for a shitty salary. If I work as a nurse I want to be paid.” (P11).

This mixed role, between both a student and a nurse, was not uniform or steadfast. In addition, they also felt unprotected due to the lack of professional insurance to legally support them, as they were unable to register with a professional body: “it was confusing, performing nursing duties, and not being registered, not having a degree, we were unprotected.” (P13).

3.2. The learning process during the pandemic

Our participants narrated how their learning was characterized as an autonomous and self-taught process; trial and error; based on responsibility and critical events.

The students learned in an autonomous and self-taught manner, completing their education via online training courses, watching videos or researching articles recommended by other professionals: “I had no idea, before I went to work I took all the courses and watched all the videos I could; the intensive care doctors told me to do such-and-such course, watch this video or read this article. The whole thing was an expedited course.” (P11).

A key aspect was learning by observing the care and procedures performed by other nurses. Some students describe using a trial-and-error method at times: “I would look or ask and see if it worked. I wasn’t really sure if it would work, if it didn’t, I changed the way I did things.” (P4). Some students found it challenging to ask other nurses. They were supposed to know everything and be prepared to help in the pandemic. Students learned through responsibility very quickly. The responsibility of caring for patients, and making decisions, forced the students to pay more attention to their actions: “it has been a major learning process, we have learned on the go, you have to learn fast to be able to do it the next day” (P18). The students described feeling thirsty to learn everything and very quickly. It was very different from clinical placements: “it was a very fast learning process, you were learning new things that, in a normal rotation, as a student you don’t even see.” (P12).

Students highlighted learning based on critical events. A way of learning based on key situations that impacted the students and that they vividly recall. Some examples were: preparing the bodies of people who died of COVID-19, sedation of patients in agony, lack of protective equipment, unexpected deaths of patients under their responsibility, disconnecting patients from the ventilator by medical order, and generalized health staff burnout: “the most relevant thing was how I learned it all. The things that mark you the most depend on the experience you have. The more intense the better.” (P12).

3.3. Learning barriers

The students narrate how their learning presented limitations, due to the lack of tutoring, the scarcity of time and the lack of definition of their role and professional competencies.

The students did not have a nurse mentor to tutor them or answer their questions as they did during the practicum: “It’s been quite staggered, I couldn’t count on a nurse to tell me how things were done.” (P4); “during your clinical placements you have a backup and you have a person behind you, but now you don’t.” (P9).

Students describe a shortage of time during their workday to ask questions, review protocols and learn. This situation was especially pronounced during the first days of their arrival: “at the beginning, I didn’t have time to learn anything, I did things as I was told and I didn’t reflect on what I was doing.” (P11). This lack of time also affected the registered
nurses, which prevented them from helping the students with their training: “they didn’t have time to stop and teach me, no one was really teaching me.” (P17). For the students, this lack of time forced them to learn “on the go”: “you didn’t have time to learn, you learned and learned, even if you didn’t want to, your patients’ lives were at stake” (P11).

The transition of the role of students to nurses took place during the periods of greatest care burden, and the students went from a supportive role to directly caring for the patients, hindering their learning: “during the pandemic I didn’t learn, I wasn’t a student, I was a nurse.” (P9); “as a student I haven’t learned anything. If these had been clinical placements, honestly, they would have been lost placements.” (P5).

The students acknowledged having acquired great knowledge and experience, but they emphasized that the way of learning, the way they have learned, was unsuitable: “what I have learned is more relevant than how I have learned it. How I have learned it has not been the best way, but I have consolidated knowledge under pressure. (P4); “it’s not the best way to learn, but it was useful, in one month you can learn what people haven’t learned in years.” (P11). The students have experienced borderline situations of stress, anguish, sadness, helplessness and loneliness.

3.4. A unique learning opportunity

The students recognized that it was a unique professional learning opportunity, which allowed them to start their working life. The experience served as a transition between being a student and a registered nurse: “I have considered it a transition from the degree to the workplace, an intermediate step that you don’t usually have.” (P13).

The students highlighted what they had learned from this experience: 1) how to be organized and effective; 2) recognizing their limits and capabilities; 3) gaining confidence in their abilities; 4) facing their fears; and 5) maturing. The limited number of contacts with patients, due to isolation measures, forced the students to plan and organize their activities: “What I have learned most is to be effective, to walk into a room and know what I need. You had to be very organized and all the actions had to be planned in a matter of seconds.” (P9). Moreover, the students learned to recognize their limits and abilities, because the work constantly tested them: “it has been a tough but enriching experience, you realize your limits as well as what you know and what you don’t.” (P17). The students felt that they had gained confidence after their experience. They felt more prepared after facing an extraordinary situation like the pandemic: “I feel more empowered, if I was able to pull through at the time, I can manage anything. I have lived through all the bad things that could happen; heavy workloads, lack of protection, lack of staff, and people continuously dying.” (P9).

In addition, the students were able to confront their fears; fear of contagion, fear of infecting loved ones, fear of death, fear of being a burden to other nurses: “Living through this pandemic has changed my life. Seeing so many people die, experiencing such hard times at the hospital, has helped me to overcome the fears I had of being a hindrance or not being a good nurse.” (P1).

Students described feeling that they had matured, witnessing first-hand the consequences of the pandemic: “experiencing the pandemic with the consequences it has had teaches you to grow up and change the way you see life or relate to others” (P18). This maturity is reflected on a personal level by appreciating the little things in life and valuing everything they have: “it has been a lesson on life, learning to value your family, to value camaraderie, to treasure life, it has been a learning experience both on a professional and personal level.” (P18).

4. Discussion

The main aim of this research was to study final-year nursing students’ perspectives and experiences regarding their learning process and mixed role (as students and novice nurses) during the first COVID-19 outbreak with a relief contract requested by the Spanish government as an exceptional COVID-19 measure. Our findings have important repercussions at health and educational levels. In the context of nursing students, this study is especially relevant for universities and health institutions (Kim et al., 2020), as these are the future professionals who will be incorporated into the battle against the pandemic.

Regarding the role during the relief contract, our results reported that there was no consensus on the roles and functions of students. Previously, Casafont et al. (2020) showed that when student nurses were incorporated to work during the pandemic, their roles and tasks were undefined, and they adapted as needs arose. In addition, Cervera-Gasch et al. (2020) reported that nursing students incorporated to work felt insecure because they did not know what they could or could not do. They require protocols indicating the activities they were allowed to do. As novice professionals, they need to follow guidelines and instructions to feel secure.

The roles and professional competencies of nurses have become increasingly important during pandemic. Competence is defined as the functional adequacy and capacity to integrate knowledge and skills in specific contexts (Meretoja and Koponen, 2012). Also, “professional competence” is associated with job performance and requirements, based on professional expectations. Nurses are expected to have expert knowledge, skills, and professional competence to ensure high-quality care in clinical practice (Liäng et al., 2020). Our findings reveal that students have difficulty applying their knowledge and skills because they lack a defined role and competencies. The authors believe that this mix of roles and competencies and the lack of a clear transition between student and nurse novice, can lead to situations of legal uncertainty of their actions. Similarly, our participants presented similar experiences to newly qualified nurses. Pimmer et al. (2019) reported how the transition from student to qualified nurse is a complex phenomenon where the first year of work is extremely hard for new graduates, who may feel exposed and anxious or uncertain about their ability to do the right thing, struggle to adapt to a high workload, and experience stress as a result of their own and the team’s expectations. The authors believe that the participants in this study have experienced the difficulties of the student role, and in addition, have experienced the welfare, physical and psychological pressure of professionals on the frontline, such as exhaustion, frustration, fear, loneliness (Algunmeeyn et al., 2020; Galedhar et al., 2020; Liu et al., 2020b; Monforte-Royo and Fuster, 2020; Tan et al., 2020).

Our results showed that students were well accepted among health teams. Previous studies (Casafont et al., 2020) regarding the incorporation of senior nursing students into the workforce during the pandemic reported that becoming a member of the team was a major concern for all students, and for most students this was a pleasant and positive experience, as bonds were created within the team and students felt welcomed. The authors of the present study believe that teamwork is an important facilitator for learning among students as they felt recognized and listened to, feeling that, for the first time they belonged to the team as professionals and not as students.

No previous findings have been found where senior year student nurses who worked in the pandemic reported concerns about being legally covered. In a press release, the Spanish nurses’ union (SATSE, 2020) warned of the legal risk of incorporating students into the workforce who were not registered nurses and did not have a nursing degree.

Regarding the learning process, our results reveal how students learned autonomously, with insufficient support or supervision, through trial and error, and by witnessing critical events. In Spain, Garcia-Martín et al. (2020) reported that during the COVID-19 pandemic, the periods in which nurses were shadowing expert emergency room nurses to support novice nurses’ transition into the workplace help provide a sense of safety and increase novice nurses’ confidence. However, this support for novice nurses cannot always be provided due to overcrowded services, continuous transfers and ever-changing protocols, the lack of personal protective equipment (PPE) and quarantined professionals. In contrast, in the study by Gómez-Ibáñez et al. (2020), student nurses who
worked during the pandemic were supervised and accompanied throughout their work placement until they became more confident in their skills. Moreover, they could put into practice many tasks that they had learned in their academic training but which they may not have had an opportunity to carry out, such as tasks related to the death of a patient.

Our results are similar to the study by Gómez-Ibáñez et al. (2020). These authors showed that in the first days of incorporation of nursing students during the pandemic, they were lacking information on what to do or how to act, i.e., as a nurse or as a student. However, they were soon forced to take on responsibilities, and some described feeling out of place and empty due to the rushed insertion into the workforce, having abruptly lost the label of “student”.

Our students described how their learning took place through critical events. Previous studies (Yildz, 2021) show how nursing students during the pandemic have improved their skills, knowledge and resilience after facing adverse clinical situations (lack of staff, equipment, deaths of peers). The authors believe that challenges are necessary to develop student autonomy; however, during the COVID-19 pandemic, it would have been necessary to control the experience of critical events and avoid the risk of emotional damage.

Our results show that learning presented limitations, due to the lack of tutoring. In Spain, Hernández-Martínez et al. (2021) showed how during nursing students’ participation as backups for healthcare workers during the COVID-19 crisis, 27.8% carried out nursing tasks without supervision, 47.7% assisted COVID-19 patients as any other nurse, and only 3.4% felt very prepared to work in the field of intensive care. During the COVID-19 pandemic, previous studies (Cervera-Gasch et al., 2020; Collado-Boira et al., 2020) reported that Spanish nursing students did not feel prepared to look after COVID-19 patients, and they reported a lack of knowledge and skills in professional practice. Also, our results coincide with previous studies describing the perceptions of British nursing students regarding their preparation for facing their final practice placement (Morrell and Ridgway, 2014). Students felt that they lacked knowledge and were used as an extra pair of hands, coupled with high staff expectations of their abilities on behalf of the unit nurses, furthermore, it was important to have a mentor, and students felt unsupported and stressed.

Our results show that nursing students have faced barriers in their learning, however, despite the difficulties, they have experienced a unique opportunity, which has changed them on both a professional and personal level. Casafont et al. (2020) reported that final-year Spanish nursing students who were incorporated into the workforce of the health system highly valued their experience because of the skills they gained. Similar to our results, the students considered that this was an opportunity to gain real clinical experience and confidence. In contrast, the same students narrated that they were somehow caring for patients with a lower degree of responsibility (Casafont et al., 2020).

Our students described that they had the opportunity to confront their fears. The fear experienced by the students is not an isolated event. The fear experienced by the students is not an isolated event. During the pandemic, previous studies (Collado-Boira et al., 2020; Gómez-Ibáñez et al., 2020) revealed that nursing students’ who were incorporated into the workforce reported fear of contagion, fear of transmitting the infection to their family, fear of the disorganization of the health system and the lack of personal protective equipment, fear of not being prepared, fear of being an obstacle for their classmates, and fear of handling complex situations such as the death of a patient. Moreover, our students reported having matured on both a personal and professional level. The pandemic has generated a reflective process on the meaning of being nurses. In this line, Gómez-Ibáñez et al. (2020) describe how nursing students who have worked voluntarily during the pandemic display a greater commitment to society and a consolidation of their vocation to the nursing profession.

The authors believe that although the students have acquired extensive knowledge, skills, experience and maturity, the way in which the learning has taken place may have led to risky situations for both the students (contagious exposure) and patients (iatrogenic exposure during care). Recently, Miriam et al. (2021) published a letter that described how the premature inclusion of nursing students during the pandemic as part of the workforce could influence their transition from student to nurse, and their decision to remain in the nursing profession. This point is somewhat controversial, however, it should be considered by health and educational institutions when incorporating students without a defined role and competencies (Nie et al., 2021).

The pandemic has led to a change in nursing education (Shun, 2021); the application of new technologies, distance learning, and the modification of practices in clinical settings (Ramos-Morcillo et al., 2020; Swift et al., 2020). However, the authors believe that it is necessary to differentiate: a) the learning process of a nursing student in pre-COVID-19 conditions (Alshahrani et al., 2018), b) the same process in the post-COVID-19 period (Haslam, 2020), c) the case presented in this study, where the students had a mixed, undefined role, where they studied and worked in the front line (Collado-Boira et al., 2020), and finally d) the incorporation of the newly qualified nurses and their transition from novice nurse to qualified nurse (García-Martín et al., 2020).

The authors of the present study agree with previous studies (Miriam et al., 2021; Monforte-Royo and Fuster, 2020; Taylor et al., 2020) regarding the responsibility of nurse educators and health care institutions in caring for our students, minimizing the effects of the pandemic on their health and helping them to integrate and learn from their experiences and to support their professional and personal development (Yildz, 2021).

4.1. Strengths and limitations

The findings of this qualitative study should be considered in light of its strengths and limitations. Among the limitations, our results cannot be extrapolated to all nursing students or other healthcare students who have worked during the first COVID-19 outbreak, due to the qualitative design. Also, due to the health situation, the interviews were conducted using an online digital platform, which may have reduced the amount of personal interaction between participants and researchers and could influence the credibility of the data. However, online digital platforms enable visual feedback, which is not possible by using other procedures such as by telephone (Archibald et al., 2019; Liu et al., 2020a). In addition, to manage and maintain the credibility criteria, the use of an online digital platform enabled the file of the recording to be obtained immediately, and therefore it could be sent out to the participants minutes after the recording took place and validated without any further delay. Another strength, to the best of the author’s knowledge and based on an extensive literature search (Casafont et al., 2020; Miriam et al., 2021; Collado-Boira et al., 2020; Gómez-Ibáñez et al., 2020), is that this is the first qualitative study to focus and describe the learning process and mixed role of nursing students who have worked at the front-line during the first outbreak of COVID-19. In addition, these results may contribute to understanding the nursing students’ experiences and their difficulties in learning and also help identify their role during the COVID-19 pandemic.

5. Conclusions

This study has enabled us to gather the perspective of final-year nursing students regarding their voluntary professional incorporation into an extraordinary situation as a result of the COVID-19 pandemic. This study provides a rich description of the experiences of final-year nursing students regarding their role during the relief contract, their learning process during the pandemic, barriers to learning and the unique learning opportunity that this represented in a health system aggravated by a global crisis. The students had no defined roles or tasks and faced the work with scant support and supervision. Learning was a self-taught process; students learnt using trial and error, while experiencing critical events. Also, nursing students had no tutoring, no time to
study the protocols, and had to learn quickly under pressure. Finally, the students learned to be more organized and effective, to recognize their limitations, gain confidence and maturity, and face their fears. Moreover, this study will help detect learning deficiencies among students, which will allow universities to further optimize the curriculum and student training needs in order to ensure their success as future professionals. Finally, we believe that this research will provide a helpful tool to learn from the current global health emergency and will serve as a reference for potential future pandemics.

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Authorship

All persons listed as authors have made substantial contributions to all of the following: (1) the conception and design of the study, or acquisition of data, or analysis and interpretation of data, (2) drafting the article or revising it critically for important intellectual content, (3) final approval of the version to be submitted.

Declaration of competing interest

None.

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