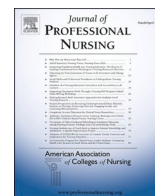




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Postgraduate nursing students' experiences in providing frontline and backstage care during the Covid-19 pandemic: A qualitative study

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ABSTRACT

Background: Safety measures due to the Covid-19 pandemic necessitated universities to reorganise teaching to accommodate the students' needs, including nursing students who had been called back into clinical practice to support front-line nursing.

Purpose: To describe the experiences of post-graduate students in nursing sciences (experienced in clinical nursing) during the Covid-19 pandemic.

Method: This qualitative descriptive study took place at a Swiss University delivering masters and doctoral programmes in nursing sciences. Participants were post-graduate students enrolled in masters and doctoral programmes. All current students were invited by email to participate in three focus groups, which were recorded, and transcribed verbatim. Transcripts were analysed using thematic analysis.

Results: Thirteen students participated, with a majority who had been called back into clinical practice. Four themes were identified: Challenges of caring for patients during the coronavirus pandemic, Challenges of being a student during the pandemic, Resilience amid the difficulties, and Recognition of the Clinical Nurse Specialist competencies.

Conclusions: Our results showed that amid the challenges, post-graduate nursing students demonstrated high leadership skills, resilience, and a tremendous sense of professional duty, where patients' and families' best interest remained their main concerns. Educators and nurse administrators need to acknowledge the impact of the COVID-19 pandemic on post-graduate nurses, caught in the tension between their academic career aspirations and duty of care to patients, families, and the healthcare system.

Introduction

Reacting to the COVID19 pandemic in the education sector, schools and universities worldwide restricted access to their campuses and put in place new teaching modalities, such as online teaching, remote online assessments, as well as the suspension of non-essential services, such as closure of libraries and student counselling services. Nursing students were particularly impacted by these measures. Clinical placements had to be suspended and the transition to remote teaching and learning took

place whilst clinical services struggled to cope with the care and treatment of Covid-19 patients. It was particularly difficult for those in the final year of training and those who had to adapt to new teaching and learning modalities, and suspend their studies whilst being called in to provide or support front-line nursing care (Gómez-Ibáñez et al., 2020; Lowes, 2020; Savitsky et al., 2020).

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Background

To date, the literature on the impact of these Covid-19-related changes in teaching, assessments, and clinical placements on students is still scarce, especially regarding nursing sciences students. A qualitative study reported the experiences of final-year nursing students employed by Spanish healthcare services to provide care during the first surge of the pandemic. They reported a strong sense of commitment towards the community and to being a nurse, despite many unknown challenges (Gómez-Ibáñez et al., 2020).

At the University of Lausanne (Switzerland), post-graduate nursing sciences students are registered nurses with a minimum of two years of professional experience, with the majority studying full-time. At the peak of the pandemic, these students faced the dilemma of safeguarding time for their studies or responding to calls to assist the nursing workforce and engage in direct patient care (either volunteered or requisitioned). Given that more than 60% of the post-graduate students in nursing sciences had to support the workforce, the University of Lausanne decided to interrupt their semester – a unique decision, as all other university programmes were maintained.

To our knowledge, research on the experiences and consequences of such a drastic change during studies is limited. A study assessing the willingness of nursing students to volunteer during an influenza pandemic found that 68% of participants (mostly undergraduate students; 94%) were likely to volunteer, particularly if protective garments were provided (77%). Whilst 71% thought nursing students had a professional obligation to volunteer during a pandemic, 83% thought students should not be penalised in case of refusal (Yonge et al., 2010). Students working with Covid-19 patients were not only exposed to the stressors related to changes in their academic training, but also to the fear of being infected and infecting others. During the SARS outbreak, nurses perceived themselves to be at high risk of infection (Wong et al., 2005).

Information on how post-graduate students in nursing sciences have been experiencing the Covid-19 crisis has recently been reported. Early evidence on the emotional responses and coping of nurses and nursing students during the pandemic indicated a need to understand the facets of these experiences and factors affecting individual responses to this challenging context. Comparing levels of emotional responses and coping strategies between registered nurses and nursing college students, students reported lower levels of anxiety, fear, sadness, and anger, as well as lower problem-focused coping. Emotion-focused coping did not differ between the two groups (Huang et al., 2020). Another study investigating self-reported anxiety levels in undergraduate nursing students during Covid-19 found prevalence rates of 42.8% of moderate and 13.1% of severe anxiety symptoms. Resilience and use of humour were associated with lower anxiety levels, whilst mental disengagement (alcohol and drug use, as well as overeating) was associated with higher anxiety levels (Savitsky et al., 2020). Recent surveys demonstrated the psychological impact of Covid-19 on home-quarantined undergraduate nursing students in China, including a high prevalence of anxiety (up to 35%), depression (up to 40%), and post-traumatic stress symptoms, ranging from 15% to 45% (Gao et al., 2021; Li et al., 2021).

Given the complex challenges of the COVID-19 crisis faced by students in relation to their academic, clinical work-related and personal changes, and the lack of evidence on the contemporary experience of nursing care during an unprecedented global pandemic, research is needed to better understand their situation in order to provide appropriate academic support. The aim of this study was therefore to describe the experiences of post-graduate students in nursing sciences (experienced in clinical nursing) during the Covid-19 pandemic.

Methods

Study design

This is a qualitative descriptive design study.

Research team

Members of the research team included four professors of nursing, all involved in teaching and experienced in qualitative research. They conducted focus groups (FGs) and analyses supported by a doctoral student (FB).

Setting

This study was conducted at the Institute of Higher Education and Research in Healthcare Sciences, University of Lausanne, Switzerland. The Institute offers PhD and Master of nursing science degrees, preparing advanced practice nurses for clinical nurse specialist or nurse practitioner roles. Besides full time studies, the majority of students continue to work in a clinical role. In March 2020, rapidly responding to high healthcare demand, the government requisitioned registered healthcare professionals. As a result, the Institute suspended all courses and academic supervision for eight weeks to allow the students to work more in clinical practice; teaching resumed on the 4th of May 2020.

Participants

A convenience sample of post-graduate nursing students enrolled in the master and doctoral programme was sought. All students enrolled in the 2020 Spring semester of their respective study programme were invited to participate. In total 13 post-graduate nursing students (nine Master-level students and four PhD students), including 11 women and two men, participated in three FGs. Two FGs had four participants and one FG had five participants.

Procedure

This study being outside the scope of the Federal Act on Research involving Humans, we were exempted from the human research ethics committee. Data collection took place between April and May 2020. An e-mail invitation to participate, outlining the objective and study procedures was sent to all (n = 102) post-graduate students. Students who e-consented were invited to participate in one of the three FGs. The first and the third group consisted of participants active in nursing clinical practice during the peak of the first Covid-19 wave, whereas participants of the second group were engaged in teaching and research activities. Each FG took place online via a secured zoom web-platform, facilitated by the last author, with the support of one of the co-authors, taking approximately 90 min per group. At the beginning, the facilitator reminded participants of the confidential nature of the discussion, that their participation would not in any way impact on their academic

Table 1
Focus group questions.

Questions
1 What in your professional and personal life has changed during the current Covid-19 pandemic?
2 What has been your experience of caring for patients with Covid-19 and what changes in patient care have you observed?
3 What is it like to have the double role of being a registered nurse and a post-graduate student during this pandemic?
4 What has been your emotional experience of being a nurse during this pandemic been like and what has helped you to manage your emotions?
5 How will your current experience influence your understanding and your practice of advanced practice nursing, as well as your post-graduate studies?

evaluation, and that they could withdraw at any time. The questions that were discussed are in Table 1.

For the second FG, some of the questions were adapted, as some doctoral-level students were not clinically active. At the end of the discussion, brief feedback and thanks was given to all participants, and information on support systems for students and professionals offered. Participants were advised that they would receive feedback of the results of the study. Audio-recorded data were transcribed verbatim by an experienced professional transcriber and identifying information removed to ensure confidentiality.

Data analysis

Verbatims of the three FGs were analysed using thematic semantic inductive analyses with the qualitative data analysis software (MAXQDA Analytics Pro 2020 version 20.0.8) to analyse patterns of shared meanings across experiences of post-graduate nursing students during the first wave of the COVID-19 crisis (Braun et al., 2019). This thematic analysis is based on a reflexive approach, including flexible coding processes.

Trustworthiness of the study was established during each of the following five phases of the thematic analysis. Phase 1: researchers' familiarization with the data. Prior to data analyses, the main analysts (ASR and FB) reviewed and acknowledged their own biases and pre-conceptions. A first reading permitted to get an overall sense of the conversation. Phase 2: generating initial codes. A provisional coding frame was developed. Comparison of coding was discussed and consensus reached to form the initial coding tree. An audit trail of code generation was documented. The verbatims of the other two FGs were analysed using the same method. Preliminary results and interpretation against the raw data were shared with the research team who provided critical feedback. This allowed further analytical refinement and formed the final coding tree. No further codes were identified after the analyses of the third FG. Phase 3: Searching for themes and sub-themes were done using researchers' triangulation. Notes about the development and hierarchies of themes and sub-themes were kept. Phase 4: Themes and sub-themes were reviewed by team members and checked adequacy by returning to raw data until consensus among the research team was reached and resulted in the final definition and naming of the themes and sub-themes (Phase 5).

Results

Four themes were identified that reflected not only a variety of challenges, but also the expression of positive experiences. The four themes included a total of eight sub-themes (Table 2).

Table 2 Themes and sub-themes resulting from data analyses.

Themes	Sub-themes
Challenges of caring for patients during the coronavirus pandemic	<ul style="list-style-type: none"> • Facing changes of the clinical environment • Caring in the patients' and families' best interest • Facing negative emotions: fear, moral distress, and frustration
Challenges of being a student during the pandemic	<ul style="list-style-type: none"> • Being concerned about workload and personal and financial implications • Dealing with uncertainty
Resilience amid the adversities	<ul style="list-style-type: none"> • Identifying various resources of social support • Caring for oneself as a coping strategy
Recognition of the CNS competences	<ul style="list-style-type: none"> • Taking up the leadership opportunities

Note. CNS=clinical nurse specialist.

Theme 1. Challenges of caring for patients during the coronavirus pandemic

Participants in clinical practice reported many challenges directly related to patient care during the Covid-19 pandemic. These challenges occurred at different levels: institutional, patient and their own personal level as a nurse. At an institutional level, participants experienced changes in the organisation of healthcare services affecting the clinical work environment. At a patient level, participants identified an advocacy role in caring in the best interest of the patients and their families. At a personal level, in a changing environment, participants expressed negative emotions, such as fear, moral distress, and frustration related to the clinical environment, as well as patient care in the unprecedented pandemic.

Sub-theme 1.1. Facing changes of the clinical environment

Participants faced drastic changes to the clinical environment during the pandemic, including the opening of new clinical units, increased working hours in response to the high demand on registered nursing resources, and having to care for a clientele they were not used to. These changes appeared to be major, as they were exposed to unfamiliar situations in which a sense of urgency prevailed.

“We changed unit three times...and found ourselves without equipment, without a pump, we had to update everything on a daily basis”

P online FG1

Participants reported having to increase their clinical hours, sometimes working for more than 12 h a day, which resulted in a heavy workload with physical and mental fatigue.

“I would say that my work is busy, I have an important role, but I found myself with a mental and physical load that I hadn't experienced for years”

P online FG1

Sub-theme 1.2. Caring in the patients' and families best interest

Caring in the patients and their families' best interest, appeared central to the participants' preoccupation during this pandemic. Despite the challenges described above, participants showed a remarkable sense of professional responsibility and duty, because when asked to choose between their studies or caring for patients, participants were unequivocally prioritising patient care.

“Listen ... you're not asking me to choose ... because I will go into care ... the master's degree will not be my priority ...”

P online FG 1

They also reported supporting not only patients isolated from their family whilst in hospital, but also family members coping with a family member severely ill in hospital, unable to be by their side. Participants facilitated the communication between the family members who could also be infected themselves and be hospitalised on different wards.

“her father was hospitalised with us [in intensive care], her mother had just died and she [the daughter] was hospitalised in medicine, so we made...so that they could see each other... discuss...the palliative care [transfer]”

P online FG 3

“...I have a hospital that looks like a prison and that's what all the patients tell me, they can't be with their loved ones and so I [had]...a desire to respond to psychological distress as much as to

neurosurgical distress...I have families in dramatic situations with people...who are in...life situations that are going to change completely...”.

P online FG 1

These excerpts also demonstrate advocacy for the patient and family members in the face of adversity. The current COVID-19 context in which patients are separated from their relatives made the nursing advocacy role even more important than when there were no family visiting restrictions.

Sub-theme 1.3. Facing negative emotions: fear, moral distress, and frustration

Many experiences related to **facing negative emotions**. Participants with direct patient contact predominantly reported the **fear** of being infected and infecting others, especially their own family members. Some expressed the fear of dying if infected. This emotional response triggered major concerns related to their own role in family functioning.

“I was anxious, I was scared! I said if I am intubated in this situation my wife is alone with the children, what will happen?”

P online FG 1

Many participants were asked to work in an unfamiliar context, or to return to work after several years out of clinical practice. This led to significant **fear** of being deemed incompetent.

“... I had no idea where I would be catapulted ... when I was asked at first ‘Do you agree to go to work in the intensive care unit?’ I realised that potentially I was going to be confronted with the limits of my skills quickly....”

P online FG 3

Participants also experienced significant amounts of **moral distress**, especially when they felt unsafe and powerless. Moral distress was experienced when clinical practice was in contradiction with evidence-based practice, professional guidelines and recommendations, or deeply held ethical or moral beliefs and values.

“I went to my boss's office and cried, I said ‘But I have the impression that I am caring...like a fool ... I [don't] feel safe”

P online FG 3

In their future role as Clinical Nurse Specialist, some participants felt their competences were under-utilised and that working conditions limited work at their full scope of practice, generating significant **frustration for not being recognised as a future Clinical nurse specialist**.

“The patients...they got all the best quality care possible, we gave everything to them, ... where I feel a bit frustrated, it's ... in such a crisis what are we going to cut first? ... We're not going to cut the management, we're not going to cut the nurses in the patient's bed, but the Clinical Nurse Specialist - yes”

P online FG 3

Theme 2. Challenges of being a student during the pandemic

For some, challenges faced by students were related to the suspension of their courses. Two sub-themes were identified: concerns about workload, and personal and financial implications, as well as dealing with uncertainty.

Sub-theme 2.1. Being concerned about workload and personal and financial implications

Participants expressed concerns regarding the excessive **workload** that it may generate later and not having enough time to successfully complete their studies. This created significant anxiety.

“the question is more how to hold out over time... the resumption of the master's degree ... I admit that this worries me a lot, ... and at the same time it frustrates me because there are the adaptations ... but at the same time we will have exams and ... in fact there is nothing that has been alleviated.”

P online FG 3

Concerns were expressed about the negative impact of course suspension on their **personal and financial situation**. Some participants had organised their studies and financial support within the time frame of the master or doctoral programme only. A prolonged study duration was likely to increase the cost burden, thus creating extra unnecessary stress.

“We also decided to postpone the submission date, but this is causing problems on a personal and financial level, I have to say clearly, then I was very worried”.

P online FG 3

Sub-theme 2.2. Dealing with uncertainty

Students had to deal with **uncertainty** related to their studies and clinical research projects put on hold. This generated additional reorganisation work in terms of amendments to study protocols or recruitment without knowing when their research project could resume. Planning ahead was difficult.

“...we had to reorganise things, I took a lot of time with the different fields that were involved in keeping them active we had to stop all the training that was planned ... not quite simple, let's say in terms of anticipation”

P online FG 2

Theme 3. Resilience amid adversity

Participants also witnessed their capacity for resilience to face adversities and described different enabling sources and coping strategies.

Sub-theme 3.1. Identifying various resources of social support

Various sources of social support were identified including support from family and friends, as well as peers and work colleagues. Participants played a “nursing” role within their own families, providing emotional and informational support to their sick family members. One participant reported to be able to reconnect with family members and be closer than previously envisaged.

“... my family... I don't see them very often, in the period when my uncle was ... really very sick, we did about an hour and a half of skype a day, where we completed a scrapbook together... and then suddenly I realised that we were much closer than we thought ... I have to say that we got much closer together ...”

P online FG 3

Some received support from student peers, but also their management team. They reported the sharing of similar experiences and opportunities to express emotions.

“We have closer links with some people ...who are studying for a master's degree, I have a very good friend who works ...[in] a totally different institution from mine but we still felt the same, I think it was 10 years where she hadn't practiced in intensive care, I was a resource for her; she was a resource for me”

P online FG 3

Employer support facilitated nurses' ability to go back to clinical work. Participants appreciated this type of support, including facilitated child support, working shifts and parking facilities. Those working in intensive care units felt privileged and valued due to the media attention and public recognition.

“I would say that we were really privileged, I think that in intensive care ... we were in the spotlight on all sides, we had a lot of resources”

P online FG 1

Sub-theme 3.2. Caring for one-self as a coping strategy

Participants acknowledged the importance of **self-care as a coping strategy** and reported adopting new healthy habits during imposed quarantine. One participant reported putting her own health back on the top priority list as a coping strategy to social isolation.

“... there was social isolation that was quite strong outside of work, but maybe it's still a positive thing I put my own health a little bit more in the centre, which I had let slip a bit in the last two years ... [adopting] healthy lifestyle behaviours, ...”.

P online FG 3

Theme 4. Recognition of the Clinical nurse specialist competences

For some, mainly those active in clinical practice, the pandemic crisis was perceived as an opportunity for the recognition of clinical nurse specialists by their nursing colleagues and the interdisciplinary team.

“What I found really good during this pandemic ... is that we work interdisciplinary a lot... there was no more difference between professionals, we could really exchange ...”

P online FG 1

Sub-theme 4.1. Taking up the leadership opportunities

In the context of the pandemic, some participants experienced or **took up leadership opportunities**, by initiating new care interventions. This enabled their being perceived as a knowledge resource and leader for knowledge transfer within their team.

“I'm going to have to bring other things, tools ... that we had considered secondary or ... not necessarily urgent useful and ... that have become ... indispensable for these [Covid] patients ... that's where ... I've become a resource person in my team where until now I'd been on the sidelines”

P online FG 1

Discussion and conclusion

To the best of our knowledge, this study is the first to report post-graduate nursing students' experiences during the COVID-19 pandemic. Our results showed that post-graduate nursing students experienced many challenges and negative emotions, including fear,

moral distress, and frustration during the pandemic. In parallel, they demonstrated high leadership skills, resilience, and foremost a tremendous sense of professional duty where patients' and families' best interests remained their main concerns.

Participants called back into the clinic reported many negative emotional responses, as opposed to those who were not. Several studies support our results showing healthcare workers engaged in direct care of COVID-19 patients at higher risk of symptoms of depression, anxiety, and distress, when compared to those who are not (Azoulay et al., 2020; Huang et al., 2020; Lai et al., 2020). The vulnerability of nurses on the frontline of the pandemic was highlighted in a recent survey of several nursing associations around the world; more than 80% received reports of distress in nurses working with COVID-19 patients (International Council of Nurses, 2021). In addition to mental health, the death toll of nurses in direct patient care highlights the real danger of virus exposure for nurses at the forefront of this pandemic (Mantovani, 2020).

Another challenge was feeling incompetent in giving care to severely ill patients, risking unsafe care that created significant distress and moral distress. Research reporting on the destructive impact of the pandemic on healthcare professionals' mental health shows results in line with our findings (Stuijzand et al., 2020; Vanhaecht et al., 2021). They demonstrated that mental health problems are far more present during the pandemic compared to before. Doubting knowledge and skills, feeling uncomfortable with the team, and stress were among the numerous negative emotions reported by the majority of the healthcare workers surveyed (Stuijzand et al., 2020; Vanhaecht et al., 2021).

Our results demonstrated that nurses took the best interest of the patient and his/her family to heart. This is not surprising, as this is a core competency of the advanced nursing practice master's programmes (FAMily health in Europe-Research in Nursing (FAME-RN) group, 2020). Caring for families is even more important during this pandemic, especially in intensive care units, because in “normal” times they are already at higher risk of developing psychopathology, such as depression or post-traumatic stress disorder; those risks are higher during the pandemic (Azoulay et al., 2021).

Amid the adversities and the fear, participants demonstrated resilience, mobilising various resources to access social support and to care for themselves as a coping strategy. Family support has shown a positive effect in reducing perceived stress levels in nurses caring for COVID-19 patients (Tselebis et al., 2020). Partners, colleagues, and friends are considered as the main sources of support for nurses, but professional support may still be needed (Vanhaecht et al., 2021).

Unique to this study is a sample consisting of registered nurses who were either gaining advanced nursing skills through their master level studies, or PhD students already acting as advanced practice nurses. For the participants, there was no questioning about being recalled into clinical practice, acknowledging that their duty of care prevailed over other engagements, including their studies. This was also reported in a qualitative systematic review that explored nurses' experience during pandemics, where they showed a tremendous sense of duty towards patients' care (Fernandez et al., 2020). Our results also showed that amid the challenges, participants were often recognised in their current or future role of CNS and had opportunity to demonstrate their leadership skills. Other reports of final year nursing students all highlighted the learning opportunities that were offered to them (Choi et al., 2020; Gómez-Ibáñez et al., 2020; Leigh et al., 2020; Lowes, 2020).

Limitations

This study has some limitations, including a self-selecting sample and as a small scale qualitative study in one clinical setting is not representative of the nursing experience across Switzerland. However, the fact that the findings of this study are echoed in the wider literature and by real world experiences of nurses, supports the quality of the data and its analytical processes.

Implications for nursing education

Our results demonstrated that programme suspension was appreciated by some, but also caused significant anxiety and challenged career options. Whilst it is important for universities to be sufficiently agile to respond to crisis, they also have the societal obligation to think long-term and prepare nurses for their new nursing roles.

Conclusions

From an educational perspective, post-graduate nursing students perceived their engagement in clinical practice during the pandemic as a learning opportunity. Suspension of the programmes was appreciated but conversely, a source of additional concern related to the consequences this might have for their future career. Educators and nurse administrators need to acknowledge the impact of COVID-19 on post-graduate nurses, caught in the tension between their academic career aspirations and duty of care to patients, families and the healthcare system.

Funding sources

No external funding.

Ethical consideration

The responsible cantonal ethics committee confirmed that the study was outside the scope of the Human Research Act 2011, and thus no ethical approval was required. However, written informed consent was obtained from each participant prior to the study.

Declaration of competing interest

All authors declared no conflict of interest.

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