



Clinical placement experience of nursing students during the COVID-19 pandemic: A cross-sectional study

Dorien Ulenaers^a, Joep Grosemans^{a,b}, Ward Schrooten^a, Jochen Bergs^{a,b,c,*}

^a Faculty of medicine and life sciences, Hasselt University, Hasselt, Belgium

^b Department of Health Care, PXL University of Applied Sciences and Arts, Hasselt, Belgium

^c School of Educational Studies, Hasselt University, Hasselt, Belgium

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ABSTRACT

Background: The impact of the COVID-19 pandemic on our society is profound, not least for the healthcare sector. On the one hand, this exceptional situation created unprecedented learning opportunities for nursing students. Yet, on the other hand, this situation can jeopardise nursing students learning trajectory.

Objectives: To study nursing students' experiences during clinical placement during the COVID-19 pandemic.

Design: Cross-sectional survey design.

Settings: Clinical placements during the COVID-19 pandemic.

Participants: Nursing students from nine Belgian nursing schools.

Methods: All students enrolled in nursing education are eligible to participate. The survey consists of five dimensions: demographics, risk perception, self-efficacy, support and communication, and resilience.

Results: The gaps that were identified by students focused on the need for more psychosocial support, establishing (regular) contact with their clinical placement supervisor, recognition of the difficult work situation, and the need for more space to unwind.

Conclusions: Nursing students expressed a strong need to be heard, prepared, and supported. Most students felt supported by their nursing schools. Because of COVID-19, the role of the preceptor became more important. However, due to several reasons, the preceptor did not always meet the student's expectations. Preparing students for specific competencies is needed. In spite of the efforts of nursing schools and clinical sites, students often got lost in the chaos of the pandemic. This resulted in practical worries, fewer learning opportunities, and even fundamental doubts about their choice to become a nurse. Finally, it crucial that nursing schools and clinical sites communicate about matters such as the responsibility for testing nursing students, the provisions of uniforms and personal protective equipment, and structurally sharing guidelines with students to provide safe patient care.

1. Introduction

The impact of the COVID-19 pandemic on our society is profound, not least for the healthcare sector. Besides causing a general societal feeling of insecurity and burden, it has put healthcare providers under additional stress, both in terms of mental and physical workload. This exceptional situation creates unprecedented learning opportunities for nursing students, in terms of exposure to exceptional circumstances that encourage creativity and initiative (Newell, 2020). Yet this situation also comes at a certain cost. Students are also confronted with an increased workload and uncertainties caused by the pandemic, which

raises questions — from practical problems to more existential reservations and doubts about the continuation of the program (d'Aquin, 2020; Leigh et al., 2020a; Lowes, 2020).

Clinical placement can be a challenging part of training, even without the additional challenges of a pandemic. Students struggle to integrate into the team, to define their professional self, and feel insecure about their competence. As a result, most students experience some form of anxiety (Kim, 2003; Melincavage, 2011). Clinical placement anxiety is defined as "a vague perceived threat to a student's goals or expectations in clinical practice, due to the presence of stressors, including unfamiliar environments or situations, resulting in psychological,

* Corresponding author at: Martelarenlaan 42, 3500 Hasselt, Belgium.

E-mail address: jochen.bergs@uhasselt.be (J. Bergs).

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physiological, and behavioral responses, and which, in turn may have a negative impact on the student's clinical outcomes" (Simpson and Sawatzky, 2020). Ineffective coping can negatively affect students' self-concept, learning skills, and competence (Grobeck, 2016). Research on sources of anxiety among health professionals during the COVID-19 pandemic illustrates the need to be heard, prepared, and supported (Shanafelt et al., 2020). However, the increased workload might restrict the available time of hospital staff to supervise students. Additionally, the nursing school's clinical placement supervisors are often denied access to clinical sites, making face-to-face supervision and coaching impossible. The combination of an uncertain and stressful environment and impaired support for students is a recipe that could jeopardise the students' learning outcomes.

These unforeseen circumstances question the current practice of coaching and guidance during clinical placement (Shaw, 2020). This situation requires creative solutions to safeguard the quality of the coaching (Ikhtlaq et al., 2020). It is, therefore, important for nursing schools to gain insight into the experiences of students. Such understandings can be used to optimise current coaching strategies but can also be used during future similar events. Therefore, this study aimed to investigate nursing students' experiences during clinical placement in the midst of the COVID-19 pandemic. We surveyed nursing students in order to describe their self-awareness, their views on internal and external support, and their self-efficacy in infection prevention and other relevant competences.

2. Methods

This paper reports on a cross-sectional study, conducted between March 2020 and June 2020 in nine nursing schools in Belgium. We used the STROBE guidelines during the preparation of this report (Vandenbroucke et al., 2007).

2.1. Design & setting

We applied a cross-sectional survey study design to examine nursing students' experiences during clinical placement in the midst of the COVID-19 pandemic in nine Belgian nursing schools. In Belgium, nursing education is provided at two levels: European Qualifications Framework (EQF) level 5 and at bachelor level (EQF level 6). Level 5 nursing is organised as a three-year program. Nursing education at Bachelor level covers four years (240 ECTS). Both educational programs comprise 2300 h of clinical placement and give access to the same title of "nurse responsible for general care", as defined in the European Directive 2013/55/EC. Supervision and coaching during clinical placement are organised differently within these programs. Within the level 5 program, a supervisor, associated with the nursing school, works alongside the student on a weekly basis. Within the bachelor's program, the supervisor rather acts as a coach, guiding the students learning trajectory. Additional practical supervision for all students is carried out by nurses working in the clinical sites (preceptors).

2.2. Participants & recruiting

All students, aged 18 years and over, enrolled in nursing education (*i.e.*, level 5 nursing or Bachelor of Nursing) were eligible to participate. We deemed all program years eligible for participation. Participation was not part of the formal clinical placement assignments and therefore voluntary. The nursing schools' management and teaching staff were blinded as to whether students participated or not.

We provided a cover letter containing all the information necessary to make an informed decision about participating in this study (*i.e.*, the objective of the study, confidentiality, expectations, and rights). To comply with the General Data Protection Regulation (GDPR), nursing students were not directly contacted by the researchers. The invitation and link to the online questionnaire were distributed by the nursing

schools themselves, using their usual communication medium (email or another online platform).

2.3. Survey

Nursing students' experiences were measured using a purpose-built survey. The items were developed to get a broad view on students' risk perception to become infected with the SARS-CoV-2 virus and to infect others, their views on internal and external support, and their self-efficacy in infection prevention and other relevant skills in the light of the COVID-19 pandemic. In addition to the structured questions, we included three open-ended questions: "What can your nursing school do to support you as a student during this period?", "What can the clinical placement site do to support you as a student during this period?", and "Describe, in a few sentences, how you experienced this clinical placement period?". These questions permit students to provide additional information or nuance. Additionally, they allowed us to identify themes and concepts that were not conceived during the design of the questionnaire.

The finale questionnaire comprised five dimensions: demographics and work environment; perception of infection risk; self-efficacy in COVID-19 related competencies; support and communication during clinical placements; and resilience. The survey was pilot tested in a convenience sample of 5 nursing students. Cognitive interviews were used to probe interpretation and survey relevance.

2.4. Data collection

Data were collected using an online survey platform (Qualtrics) provided by the university, which guarantees adherence to all regulations and legislations regarding data protection. Survey completion was done between April 20, 2020 and June 5, 2020. As we were using an anonymous link, general reminders were sent out weekly during the data collection period.

2.5. Data analysis

Data were analysed descriptively; according to the distribution appropriate measures of central tendency and dispersion were used. For Likert style questions, proportions and percentages are used to summarise the results. Differences between groups were analysed using student's *t*-test, analysis of variance (ANOVA), or chi-square test, according to the measurement level and underlying distribution. The significance level α was set at 0.05. All analyses were performed using R: A Language and Environment for Statistical Computing version 4.0.1 (R Foundation for Statistical Computing, Vienna, Austria).

The open questions are approached using a thematic analysis method. We closely examined the answers to the open-ended questions to identify common themes – topics, ideas and patterns of meaning that come up repeatedly. The meaningful concepts were grouped into categories with the same meaning. This process was conducted independently by two authors (DU & JB), after which all authors provided feedback on the summary text. All authors had access to the original data and the coding excerpts so that they could verify the interpretations and the actual quotes.

2.6. Ethical considerations

A full proposal outlining all study methods and stages was reviewed by the committee for medical ethics of Hasselt University, who granted permission for the study to proceed (ref. CME2020/029). Each student received a copy of the informed consent in the (reminder) invitation email. In order to access the online survey, students needed to give their consent. The anonymity of the participants was guaranteed at all times. No incentives were offered to participants. In the survey, only the university logo was depicted, and students were assured that this was an

independent research project and not a curricular evaluation form from their nursing school.

3. Results

3.1. Respondents characteristics

In total, 665 valid questionnaires were returned from 3809 students, representing a response rate of 17.46%. Most of the respondents were female ($n = 597, 89.77\%$). The age of the participants ranged from 18 to 56 years, with a median of 23 years and a mean of 26.97 ± 8.86 years. The majority of respondents were in the second year of their program ($n = 229, 34.44\%$), followed by the first year ($n = 216, 32.48\%$) and third year ($n = 199, 29.92\%$).

3.2. Effect on clinical placement planning

The COVID-19 pandemic affected clinical placement planning for less than half of the students; most students could continue their clinical placement as planned. The clinical placement site changed once for 36.09% of students ($n = 240$), for 9.17% of students ($n = 61$) the pandemic resulted in several site changes. Despite the COVID-19 pandemic, 54.74% of students ($n = 364$) could continue their clinical placement as planned.

For most students, clinical placement took place in a unit without SARS-CoV-2 infected patients (54.59%, $n = 363$). Some students indicated that they were unaware whether patients with a proven SARS-CoV-2 infection were present at their clinical placement unit (11.28%, $n = 75$). Most students were not actively involved in the care for COVID-19 patients ($n = 446, 67.07\%$). Surprisingly, 8.72% ($n = 58$) of the respondents indicated that they did not know if they were actively involved in the care for COVID-19 patients.

3.3. Risk perception

The perceived risk of becoming infected with the SARS-CoV-2 virus during clinical placements was on average 46.79 ± 27.56 (on a scale of 0 to 100), 57.74% of the respondents estimated the risk to be at least 50%. This was higher than the perceived risk of becoming infected outside the clinical placement site (39.04 ± 25.24), for which 44.51% of the respondents estimated the risk to be at least 50% ($P < 0.001$). Being actively involved in the care for COVID-19 patients significantly influenced the risk perception of becoming infected with the SARS-CoV-2 virus (58.71 ± 26.86 vs $42.31 \pm 26.94, P < 0.001$). The perceived likelihood of infecting others (on a scale of 0 to 100) was as follows: patients ($42.34 \pm 27.74, 49.47\%$ at least 50%), other caregivers ($41.57 \pm 27.86, 47.67\%$ at least 50%), and family members ($43.72 \pm 29.97, 51.28\%$ at least 50%). See Table 1 for an overview.

Table 1

Nursing students' risk-perception of becoming infected or infecting others with the SARS-CoV-2 virus.

How do you estimate the risk ...	Score: 0 (no risk) to 100 (I will surely get infected/infect others)			50 or higher	
	n	Mean	SD	n	%
... to become infected yourself during your clinical placement	665	47	28	384	58
... to infect patients during your clinical placement	665	42	28	329	49
... to infect other caregivers during your clinical placement	665	42	28	317	48
... to become infected yourself outside your clinical placement site	665	39	25	296	45
... to infect family members	665	44	30	341	51

From the open-ended questions, we learn that the COVID-19 pandemic made students constantly aware of infection risks. Furthermore, students indicated that they were very conscientious regarding hand hygiene, the use of gloves, and the application of preventive measures—especially when students had previous clinical placement experience under non-pandemic circumstances.

“Hand hygiene is a basic part of nursing care, but this situation has made me think differently. During other internships, I didn't consciously think about it, and sometimes I forgot to disinfect my hands. Now I am hyper-alert to everything that has to do with infection prevention because I don't want to infect myself or my patients. I'm sure I'll never forget disinfecting my hands again.”

— Third-year Bachelor student

3.4. Self-efficacy

Students felt, on average, most confident about *Recognising patients with oxygen deprivation* (mean 77.24 ± 21.14) with 66.17% scoring 75 or higher on a scale from 0 (no confidence) to 100 (strong confidence), followed by *Administering oxygen* (mean 76.93 ± 25.51) for which 67.22% scored 75 or higher. Students felt less confident about *Managing the psychological impact of isolation on the patient* (mean $59.07 \pm 24.91, 29.92\%$ 75+ score). Students felt least confident about *Observation and monitoring of ventilated patients* (mean $44.65 \pm 31.31, 22.11\%$ 75+ score). Further details are provided in Table 2. A comparison between program years is included in Appendix 1.

3.5. Support from the nursing school

Overall, 77.44% of students ($n = 515$) felt they could discuss their concerns with the nursing school's clinical placement supervisor (agree or totally agree), 5.26% ($n = 35$) felt unsupported by the supervisor, others were neutral (17.29%, $n = 115$). When asked what schools could do to improve the support of students during this period, many students indicated that their nursing school already provided the appropriate support. Some students praised the strong policy and vision of their school. Frequent contact with their supervisor (i.e., at least weekly) was found to be even more important in COVID-19 times, as was maintaining a constructive relationship and continuity in the follow-up.

The gaps that were identified by students focused on the need for more psychosocial support, establishing (regular) contact with their clinical placement supervisor, recognition of the difficult work situation, and the need for more space to unwind. Students indicate that it would help if there was more flexibility in the planning of tasks and exams, as the combination of clinical placement, studying, and online teaching are

Table 2

Nursing students' self-efficacy rating for COVID-19 related skills.

To what extent do you have confidence in your skills in the following areas?	Score: 0 (no confidence) to 100 (strong confidence)			75 or higher	
	n	Mean	SD	n	%
Properly put on and remove protective equipment.	665	72	22	359	54
Taking precautions against droplet transmission	665	68	25	317	48
Managing the psychological impact of isolation on the patient	665	59	25	199	30
Recognizing patients with oxygen deprivation	665	77	21	440	66
Administering oxygen	665	77	26	447	67
Observation and monitoring of patients with respiratory infections	665	59	28	248	37
Observation and monitoring of ventilated patients	665	45	31	147	22

considered burdensome.

Students were frustrated about the school's expectations towards their learning objectives during clinical placement as they often experienced fewer learning opportunities, due to changes in their clinical placement site or because their preceptor was overburdened with COVID-19 related issues. Students indicated that nursing schools needed to provide structured and unambiguous information about learning objectives and safety measures in a timely manner. Yet, they recognised that the exceptional and uncertain circumstances probably did not allow it.

3.6. Support from the clinical placement site

Regarding the ability to discuss concerns with the preceptor, 61.95% of students ($n = 412$) felt positive (agree or totally agree), 11.28% of students ($n = 75$) had the feeling they couldn't address their concerns with the preceptor, the others were neutral (26.77%, $n = 178$). Students indicated that most clinical sites provided the necessary information about (changed) measures, created a supportive environment, and valued them for the help they offered. During this period, students felt a need to discuss their concerns, at least on a weekly basis. Partly due to the (mandatory) physical absence of their nursing school's supervisor, students expressed a stronger need to interact with the head nurse and/or the preceptor. It turned out that there was not always time or attention for this need.

Students experienced this period as physically and mentally stressful. Some felt that the (staff from) the clinical site did not always express sufficient recognition and appreciation for their work. Students are well aware that the situation was exceptional, and that uncertainty and frequent changes in guidelines were difficult to avoid. Yet, apart from that, students experienced a lack of openness and integration during clinical placement. This lack of openness expressed itself in meetings among nurses in which students were not involved, the communication of new appointments and guidelines via internal mailing that students did not receive, and the failure or delay in informing students about potentially infected patients and infected staff. Also, the measures that were taken in clinical sites for testing health care providers and offering psychological assistance did not always include students.

3.7. Experiences during clinical placement

When asked what the COVID-19 situation meant for their learning experience, 52.63% of students ($n = 350$) stated that they experienced this situation as an enriching experience within their training, 19.85% of students ($n = 132$) experienced it as a limitation, and the remaining part was neutral (27.52%, $n = 183$).

It is clear that the experience was different from the usual clinical placement. Students described their experiences in various ways. A number of students who found it a knowledge enriching, remarkable, and instructive period. This because they were able to challenge themselves, were well supervised by preceptors when performing new actions, felt safe, and witnessed strong teamwork. Other students indicated that clinical placement during the COVID-19 pandemic was more demanding than usual, using various adjectives such as: busy, insecure, hectic, difficult, infernal, rare, difficult, emotional, overwhelming, heavy, stressful, weird, unsafe, and psychologically stressful.

"I was more scared than usual, more in need to talk about my experiences than usual, more in need of relaxation than usual". — Second year HBO5 student

3.7.1. Exposure to COVID-19

Some students, often those with more experience, explicitly wanted to have the opportunity to work in COVID-19 specific settings. Many other students indicated that they felt more comfortable when their

nursing school or the clinical site themselves made the decision not to let nursing students care for (potential) COVID-19 patients:

"They kept me from getting in contact with the patients in the COVID ward. This made me feel more comfortable and more secure"

— First-year HBO5 student

In summary, students would like to be given a choice, depending on their competences and their domestic situation (e.g., family members with a risk profile).

3.7.2. Personal protective equipment

An important additional stressor for students was the availability and use of personal protective equipment. Students indicated that they needed additional training for putting on and removing protective equipment, which seems conflicting with the high scores for self-efficacy regarding this skill (see Table 2). In normal circumstances, students usually have a personal uniform which they wash themselves, unlike nurses who have clean uniforms at their disposal provided by their employer. In times of COVID-19, students did not find it evident to take their uniforms back home to wash them themselves. Furthermore, in several clinical sites there appeared to be a shortage of personal protective equipment, so students had to use the same surgical mask for an entire shift or even during several days:

"Sometimes we are forced to wear one surgical mask for several days, the quality often left much to be desired". — Second-year Bachelor student

Students relied on their nursing school to guarantee their safety during clinical placement. Students felt that schools should take responsibility to check whether students have access to sufficient protective material and, if necessary, provide this for their students. For example, one student said:

"The school should check if the facility where we complete our clinical placement has enough protective equipment". — Second-year Bachelor student

3.7.3. Fewer learning opportunities

What students regret is that there were fewer learning opportunities, or that they were insufficiently monitored by their preceptors. Limited time and attention for students made some competences impossible to attain (e.g., complex wound care).

Students indicated that there were little to none opportunities for practising technical nursing skills. Several students reported a site change from a hospital unit to a nursing home, where there are fewer opportunities to practise technical nursing skills. Besides, nurses were not always able to provide appropriate supervision due to their own insecurity. On the one hand, due to the surrounding events of the pandemic, but also because they themselves shifted between units, which made it more difficult for them to support students in their learning process.

Because there were COVID and non-COVID units, patient populations became more varied in terms of pathology. This multitude of disciplines made it more difficult for students to get acquainted with the typical work on their unit. Overall, students fear that this period will have an effect on their competencies.

"I think I am missing out on learning opportunities by not being able to do my elective internship in heart surgery but instead have to do an internship in a nursing home. I already had four similar internships in this field. I think I'll graduate less competent - if I graduate at all." Finale year bachelor student.

3.7.4. A different view on patient interaction

The perception of students towards patients was different now

patients were being isolated and could not receive any visitors. Students were concerned about the mental impact of isolation, especially with older patients or residents. Many students indicated that they tried to make more time for patients. However, contact remained rather impersonal due to social distancing and the use of masks that hid their facial expressions. Some indicated that the limitation in technical learning opportunities could partly be compensated by focusing on the development of competencies in the field of communication and patient centricity.

3.7.5. Communication and teamwork

Further, 24.06% of students ($n = 160$) felt that the COVID-19 pandemic negatively influenced communication and teamwork between nurses and students, others felt it improved teamwork and communication compared to usual placement experiences (32.78%, $n = 218$), the remaining part was neutral regarding this aspect (43.16%, $n = 287$). According to 18.35% ($n = 122$), communication and teamwork between nurses was also negatively impacted, while others experienced improved communication and teamwork between nurses (32.18%, $n = 214$). There was also a noticeable positive impact on the communication and teamwork between nurses and physicians, according to 29.77% of the students ($n = 198$). Further details are provided in [Table 3](#).

3.7.6. Resilience

When asked about their resilience, 49.47% of students ($n = 329$) felt that they could maintain a balance between clinical placement and private life, 24.06% ($n = 160$) felt less able to maintain this balance, and the remaining part was neutral (28.57%, $n = 190$). Further, 66.32% of students ($n = 441$) managed to remain optimistic about what they could contribute during clinical placement, 9.92% ($n = 66$) felt negative about his or her contribution during clinical placement, and the remaining part was neutral (25.86%, $n = 172$).

4. Discussion

The COVID-19 pandemic had a noticeable impact on the experience of nursing students, ranging from organisational changes, uncertainty about their own competences, and even fundamental doubts about continuing their education. Approximately half of the students (54.74%) were able to continue their clinical placement as planned, others changed units within the clinical site or had to switch to another site. This gave rise to practical concerns and, in some instances, caused discrepancies between learning objectives and learning opportunities. This led to confusion and feeling insufficiently supported. In general, students were satisfied with the support provided by the nursing schools. Nevertheless, students indicated that there was an increased need to be heard, prepared, and supported; and articulated a clear need for interaction with their supervisor or preceptor. The gaps that were identified focused on the need for more psychosocial support, establishing (regular) contact with their clinical placement supervisor, recognition of the difficult work situation, and the need for more space to unwind.

Despite most students (67.07%) not being actively involved in the care of COVID-19 patients, there was a certain degree of fear of

Table 3
Perception of communication and teamwork during clinical placement.

In your opinion, did the corona crisis influence the communication and teamwork on your placement site?	Score: 1 (strongly negative effect) to 5 (strong positive effect)			4 or higher	
	n	Mean	SD	n	%
Between nurses en students	665	3.1	1.02	218	33
Between nurses	665	3.2	0.97	214	32
Between nurses and physicians	665	3.2	0.93	198	30

becoming infected, which increased if students were involved in the care of COVID patients. This fear is intensified by the lack of sufficient PPE, which raised questions about the responsibilities of nursing schools to keep their students safe. However, these concerns do not stop students from taking up the internship with full dedication, something that could also be noticed in other countries ([Cervera-Gasch et al., 2020](#); [Collado-Boira et al., 2020](#)).

Clinical practice is a critical yet complex and challenging component of students' professional development ([Spence et al., 2019](#)). Also, during normal circumstances, students can develop anxiety with a negative influence on their learning outcomes. Other research has shown that COVID-19 pandemic may put the mental wellbeing of students at risk, and emphasized the importance of recognizing feelings like hopelessness, helplessness, and burnout are important to be aware of ([Shaw, 2020](#)). Students recognised the challenges in which the clinical placements took place and displayed a fair level of understanding for the changing roles of both the supervisor and the preceptor. Nevertheless, students indicated that it was difficult to find a place in the changing environment and the rapidly changing recommendations and rules. Some students experienced a lack of openness and integration during clinical placement. This 'sense of belonging' — defined as "an essential concept for mental health, where it is important to feel needed, accepted and fitting in" ([Grobecker, 2016](#)) — is also something students find important under normal internship conditions. Yet in these circumstances, it becomes even more important, which is confirmed in other studies ([Collado-Boira et al., 2020](#); [Leigh et al., 2020a](#)). This calls for an open culture of trust and support, and the promotion of resilience in students, nurses, and educators.

4.1. Limitations

The results of this study should be interpreted in light of the following limitations. First, as participation was voluntary, selection bias could exist. Students with extreme positive or negative experiences could be more likely to participate, leaving the more neutral perceptions out of the equation. However, given the distribution of answers on questions related to their experience, we feel confident that various opinions are included. This is also to be found in the open questions; both positive and negative formulated remarks are presented. Second, asking for experiences amid the COVID-19 pandemic could lead to a lack of nuance and reflection on the situation. Questionnaires may have been completed before appropriate measures were taken by the school or the clinical site, which in retrospect could lead to a different global experience. Nevertheless, we are convinced that this *ad hoc* way of questioning provides a rich insight into the various experiences of students. In retrospective thinking exercises, important details can get lost that are important when formulating a script for future reference. Finally, we have not made a distinction between education levels and program years. By integrating these perceptions, we get a generalizable picture of the various experiences of nursing students in general.

4.2. Implications for practice

Even during normal circumstances, students are known to develop anxiety. To avoid a negative influence on their learning outcomes, pre-clinical training sessions, (digital) coaching, and support from their preceptor and supervisor are crucial. The recently-defined concept of clinical placement anxiety offers an underpinning for the development of educational strategies to prevent and manage student anxiety during clinical placement effectively ([Simpson and Sawatzky, 2020](#)). While some standards and tools have been formulated, the ideal approach remains to be defined and tested ([Leigh et al., 2020b](#); [Pitts et al., 2019](#)). It is therefore necessary to speed up the development and testing of support measures. Preference is given to online applications that are easily accessible to students, including those who are less likely to seek help.

The measures taken at clinical sites, such as testing healthcare providers and providing psychological support, did not always apply to students. This is worrying, as nursing students work full-time during their clinical internships and are just as exposed to the virus and additional stressors as the average nurse. Clinical sites should therefore, in conjunction with the nursing schools, pay sufficient attention to the health and well-being of students. The government can also play a role by taking into account the existence of students in healthcare institutions when granting financial support measures.

5. Conclusions

In line with previous literature, nursing students indicated a strong need to be heard, prepared and supported. This study reinforces the importance of concepts that influence the experience and outcome of students under normal circumstances; anxiety and uncertainties play a determining role in this. The support of supervisors and preceptors is crucial here, and the creation of an open and supportive culture in which students can develop themselves to the fullest is once again underlined. Although students acknowledge that their school and clinical site did their best given the circumstances, we cannot deny that students often got lost in the chaos of the pandemic. This resulted in practical worries, fewer learning opportunities, and even fundamental doubts about their choice to become a nurse. Finally, it is important that the nursing schools work with the clinical sites on issues such as the responsibility for testing nursing students, the provision of uniforms and personal protective equipment, and sharing guidelines with the students to provide safe patient care.

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Data and research materials supporting the results in the article are available upon request.

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CRedit authorship contribution statement

Dorien Ulenaers: Conceptualization, Methodology, Formal analysis, Investigation, Writing – original draft, Project administration **Joep Grosemans:** Writing – Review & Editing **Ward Schrooten:** Conceptualization, Methodology, Writing – Review & Editing **Jochen Bergs:** Conceptualization, Methodology, Formal analysis, Writing – Review & Editing, Supervision.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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