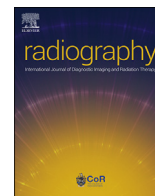




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An evaluation of the experiences of academics and practice educators who supported radiography students working on the temporary HCPC register during the COVID-19 pandemic



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ABSTRACT

Introduction: The COVID-19 pandemic has had a profound impact on all those residing in the United Kingdom, resulting in unprecedented changes being made to the education and training of healthcare students. Universities and practice partners had to respond quickly and work in close collaboration with Health Education England, to ensure the changes brought in by the Health and Care Professions Council (HCPC) emergency measures were implemented.

The aim of this study was to explore the experiences of staff supporting final year diagnostic and therapeutic radiography students who joined the HCPC register early during phase one of the COVID-19 pandemic.

Methods: This study was informed by a phenomenological approach, in which a purposeful sample of eight participants comprising of six practice educators (PEs) and two academics. Semi-structured interviews and focus groups were conducted to collect the data via a virtual platform.

Results: The results highlighted three themes, Competence and the transition to registration, Support mechanisms and Communication. Both academics and PEs described how they observed the new registrants gaining confidence and competence during their time on the temporary register and suggested that professional bodies could consider curriculum changes to encompass a final transitional placement similar to their experience. They suggested that having robust support mechanisms and communication in place are essential for the success of this initiative.

Conclusion: The results provide insight into how PEs and academics supported new registrants to meet the necessary requirements of the HCPC register whilst working during the first phase of the COVID-19 pandemic. They highlight the importance of having robust support mechanisms and good communication in place to achieve this.

Implications for practice: Some consideration could be made to changing the curriculum in the future to allow for early temporary registration and paid Band 4 final placements for students working as assistant practitioners.

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Introduction

The first phase of the COVID-19 global pandemic had a significant impact on students studying in the United Kingdom, heralding profound changes to every aspect of their lives.¹ In terms of education, the most striking of these was the emergency measures implemented by the regulator, the Health and Care Professions Council,² which provided third year radiography students at the

end of their course with the opportunity of joining a temporary HCPC register. This presented significant challenges for learners, universities and placement providers.³

During the first wave of the pandemic the government asked health students to step up to support the NHS and clarified that final year AHP students could be placed on a temporary HCPC register.⁴ The HCPC actively engaged in discussions with the Government, NHS representatives across the four countries, the Council of Deans for Health and others, to ensure their approach facilitated the NHS in recruiting the workforce it required at this time.²

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Universities were able to nominate final year students to be included on the HCPC temporary register who had completed all of their practice assessments and were deemed to be competent (HCPC, 2020). These students then had the option to work as registered professionals under the HCPC Emergency Standards. This created many challenges for all those involved and required close collaborative working between the HCPC, universities and practice partners.³

Universities faced unparalleled challenges and had to respond to an urgent need to adapt teaching, assessment and student support services in the face of the COVID-19 pandemic. However, academics had to be mindful of student safety, and their welfare needed to remain a priority when nominating them to join the HCPC register early as temporary registrants.⁵

Traditionally, practice placements tend to prioritise student's learning needs rather than operational health needs, consequently students are not remunerated or considered as part of local workforce establishment. However, in response to COVID-19 pressures, the time students spent in practice had a different focus as they joined the temporary HCPC register, were employed and no longer supernumerary. This meant they had to be responsible and accountable for the care they were paid to deliver.

Universities and healthcare providers have various support mechanisms in place to enhance student learning when on practice placement. These support mechanisms usually include the use of practice educators, mentors, link lecturers, guided reflection activities, pre-briefing and de-briefing. These enhance the learning of the student through helping them to draw meaning from events that happen in the practice environment. This also allows for the early identification and remediation of any problems or issues that students encounter in practice. However, these models of support are designed to support students completing a supernumerary placement during which they have reduced professional accountability and responsibility.

Therefore, this evaluation explored the experiences of academics and practice educators (PEs) supporting third year radiography students joining their professional register early and who were no longer supernumerary. This is the second paper reporting results from this study, the first paper focussed on the experiences of the students.

Aim

The aim of this study was to explore the experiences of academics and PEs supporting final year diagnostic and therapeutic radiography students who joined the HCPC register early during phase one of the COVID-19 pandemic.

Methodology

Design

A phenomenological approach was used to inform the study's design to gain insight into the academics' and PEs' lived experience. The focus was to obtain detailed accounts from individuals about their perception of the phenomenon being investigated.⁶ Data collection included semi-structured interviews and focus groups. Phenomenological studies use semi-structured interviews and focus groups to gather knowledge by facilitating a free flow of information from participants. Thus, the use of open-ended discourse opens the appearance of information, helping to capture the described lived experience.⁷

Participants and data collection

There were several issues considered when determining the sample size, one of which included the heterogeneity of the population. The population to be studied was reasonably homogeneous and following ethical approval a purposive sample was chosen for this study. Eight participants were recruited, this included two academics and six PEs, all of whom supported the new registrants during this time. The recruitment and consent processes are detailed in Fig. 1.

The PEs participated in two focus groups and the academics participated in semi-structured interviews, both the focus groups and interviews were conducted using a schedule of seven questions based on the aims of the study, see Table 1.

The participants' ages varied from 30 to 59 years. There were six females and two males, all were of white British ethnicity. The demographic data for the participants is illustrated in Table 2.

The data were collected and recorded in October and November 2020, via Microsoft Teams due to the risk of face-to-face virus transmission.

Data analysis

Data analysis was undertaken using the framework developed by the National Centre for Social Research (NCSR).⁸ All interviews and focus groups were transcribed and to reduce bias and allow for member checking, all transcriptions were returned to the participants to ensure that they were a true record of the interview/focus group. Minor revisions of the transcripts were made as requested.

A thematic framework was established by revisiting the aim of the study whilst looking at the emergent issues and identifying any key themes. The interview and focus groups transcripts were annotated manually by each of the researchers independently. From this, a range of experiences for each theme were considered. The following overall themes emerged from this process:

- Competence and the transition to registration
- Support mechanisms
- Communication

Ethical considerations

The study was conducted by upholding the principles of good clinical practice (GCP) and ethical approval was received from a local University's Ethics Committee. The researchers ensured that they upheld the domains of the Research Governance Framework⁹ and adhered to the principles of the General Data Protection Regulations.¹⁰

Results

Following data analysis three main themes emerged: competence and transition to registration, support mechanisms and communication. Each of these themes were further deconstructed under emergent subheadings.

Theme 1: Competence and the transition to registration

This theme encompasses the thoughts of the academics and the PEs supporting the students during the rapid transition into a professional role where they had to take on accountability and responsibility that they had not expected so early on. It will be

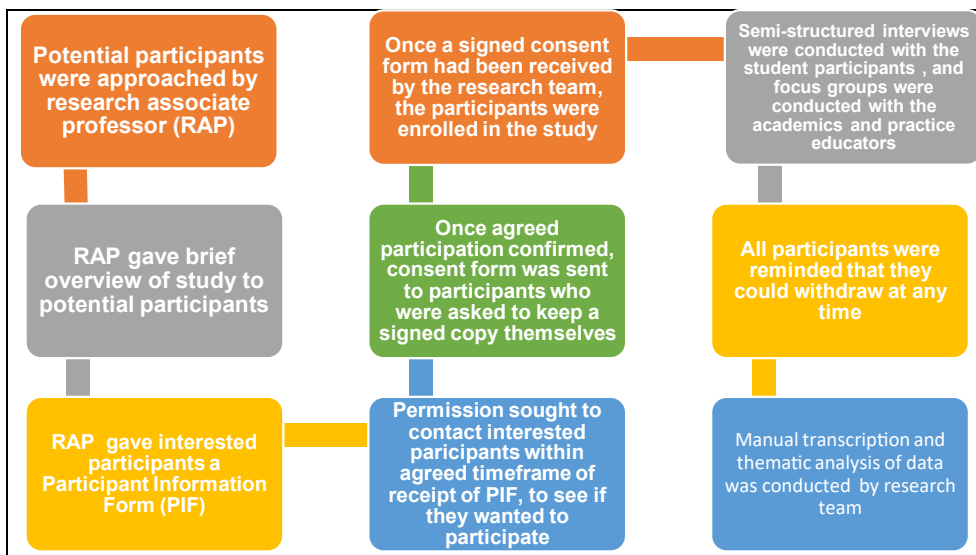


Figure 1. Flow chart of recruitment and consent process.

Table 1
Schedule of Questions for Semi-Structured interviews/Focus groups.

1. What was it like supporting students making the transition to working on the HCPC temporary register?
2. What support were you expected to provide during this period?
3. What changes had to be made to make this possible?
4. How were the students received in the workplace?
5. Did you notice any differences in this group of students compared to other final placement students on other years?
6. What lessons have you learnt from supporting students during this time?
7. What else would you like to share about your experience?

Table 2
Demographic data of the participants.

Number	Job role
PE1	Diagnostic Radiography PE
PE2	Diagnostic Radiography PE
PE3	Diagnostic Radiography PE
PE4	Therapeutic Radiography PE
PE5	Diagnostic Radiography PE
PE6	Diagnostic Radiography PE
CL1	Therapeutic Radiography Course leader
CL2	Diagnostic Radiography Course leader

discussed under three sub-themes: registration of students on the HCPC temporary register, students ‘stepping up’ and their competence, and students’ transition from Band 4 to Band 5

Registration of students on the HCPC temporary register

Both the academics and PEs described how they knew the students were competent and therefore that it was an easy decision to make to facilitate them joining the temporary register.

“It was an easy decision to make to decide they could go on the temporary register because I knew they were capable” (PE1).

“Before everything got shut down, one of the reasons I was pushing them all and encouraging them to get everything done in their books was because I believed that they were competent, and I wanted them to be able to work. I was 100% happy with them going through when they did” (PE5).

They described how it was challenging in the first instance to get the students to be put on the HCPC temporary register and how proactive they had to be to ensure it happened.

“It was tricky in the first instance getting the HCPC to activate the information we sent them to get the students on the register. We were very proactive early on and we were one of the first universities to get them registered, it was very frustrating in the beginning, the students were very keen to start but we could not get them on the register” (CL2).

Students ‘stepping up’ and their competence

The PEs and the academics described how the students were very motivated and got on with what was required.

“To be honest they were really easy to support because they really ‘cracked on’ with it and got on with what they needed to do” (PE6).

“they pretty much ‘flew’ as new registrants, to be honest” (PE6).

“It was one of the best possible groups to be able to take on the early registration, they were all hard working, motivated and very pragmatic” (CL2).

“they literally hit the ground running; they had no time to get used to being a staff member” (CL1).

Students transition from Band 4 to Band 5

Both the academics suggested that this group of students were a strong group and that they were

“always going to excel” (CL2).

One of the PEs also suggested

“They were a really strong year group anyway and a lot of the students had already completed their books before they went off” (PE2).

Another PE said

“We were in a fortunate position in that all of the students we had were very capable. They were competent above their level of training” (PE4).

One of the academics stated that the course “provides a 60% practice education element to it which other universities don't offer. The students said this put them in a strong position to function in their roles” (CL2).

However, both the academics and the PEs said that the students were initially working as Band 4 Assistant Practitioners (APs), where they were supervised, and this really helped with their transition to registrant.

Other PEs described how they supported the students to help make the transition as seamless as possible.

“Thankfully, it was quite seamless. We didn't allow our students to become Band 5s, they were Assistant Practitioner (AP) Band 4s and I think that helped with the transition as they were already familiar with our protocols and the systems of work, even though they were ever changing during covid!” (PE3).

Theme 2: Support mechanisms

This theme presents the support given to the students at different stages of the journey of joining the temporary register during the pandemic. It will be discussed under three sub-themes: support provided by the academics, support provided by the PEs and enhanced professional support provided by radiographers in the practice setting.

Support provided by the academics

The academics described how they set up virtual learning platforms to enable the students to continue to learn, to complete academic assessments and to feel supported.

“I was able to support them by putting on some virtual learning workshops at 7pm in the evenings after they had finished work and I was surprised how many attended them - wanting to learn” (CL2).

“It all worked out well in the end, but the online assessments were a challenge for us all - we were all learning - but we tried to support the students as much as possible” (CL1).

The support provided by the academic staff become more ‘remote’ and transitioned to being online. The students appreciated this and made use of the opportunities to connect with the academic staff.

Support from the practice educators

The PEs described how they provided support for the new registrants but how things had changed for this group now that they were employed. They said that they were not expected to continue provide this kind of support on their own but that it was shared with the radiographers.

“I wasn't expected to give any support really. Obviously, I was working the department, and so I did check-up often on the student and I did work with her quite a bit” (PE3).

“I wasn't expected to provide support, the support was provided by the whole team. It wasn't down to any one individual to provide support. I just provided support like you would for any new member of staff. It was a team approach to support, so it was ‘all hands-on deck’ then” (PE4).

Enhanced professional support

Both the academics and the PEs described how positive the professional support was that the students received from radiographers and managers in practice.

“The feedback from the students was really positive about all the support they received from their colleagues in practice, they described how they were given the opportunity to talk about what they had done and seen and were allowed to share their experience. The students described being able to just talk to the clinical staff and managers” (PE1).

The PEs said the students had described to them how they really felt supported in their working environment.

“They said they couldn't have asked for better, everyone was really good. There was a really big feeling that they were all in this together and supporting each other” (PE4).

The academics and PEs described how the clinical staff supported the new registrants to complete their preceptorship programme and ensured they were comfortable with what they were being asked to do in practice.

“Most were started off on a preceptorship programme, so, the clinical staff made sure they had their booklets to complete and checked to make sure that they were comfortable doing what was being asked of them in practice” (PE3).

Theme 3: Communication

This theme explores the challenges and opportunities encountered by the academics and PEs throughout the new registrants' placements. It will be presented in two sub-themes:

Cross organisational communication and importance of communication in supporting health and well-being. The need for good communication was mentioned on several occasions by the PEs and the academic staff.

Cross organisational communication

There needed to be robust communication processes in place to ensure that the students and all the staff working between the university and the NHS organisations were up to date with the national processes that had been recommended. The communication between the university, PEs and departmental managers was key to the smooth transition of the new registrants.

“I do think that they [the students] felt that we were very unified in what we were doing and saying, you know that fact that we worked together [the Practice Educators and the University], and we showed a degree of flexibility” (PE5).

“... during the whole lockdown, the whole academic and clinical teams worked together to get work to students online. The academic staff had the lectures and then the practice educators put up materials for the students online, just not the hands-on practical support in the hospital. I think we did well as a whole team” (PE6).

Importance of communication in supporting health and well-being

Several of the participants described the importance of communication in supporting the health and well-being of staff but particularly of students prior to their placements.

“I kept in touch with the students by email mainly, I offered them the opportunity to contact me for drop-in sessions via teams, some of them did use it and I had weekly contact with them, I did this for all the students and years, those that we allowed on the temporary register still had academic work outstanding” (CL1).

"In many ways, it highlighted how important communication is for students prior and during practice. I've been doing the job for a while now and I have learnt how important it is to deal with student's anxiety, providing students with the information that they need at the start and ensuring they always know what is expected of them during practice and providing them with constructive feedback throughout their placement" (PE1).

Discussion

The main aim of this study was to gain a greater understanding of the experiences of the academics and PEs when supporting students who joined their professional register early during the COVID-19 pandemic. The NHS People Plan⁴ emphasises the need to acknowledge the impact of working in stressful environments can have on individuals and suggests that a coordinated approach needs to be adapted to improve support during clinical practice, ensuring that the health and well-being of the staff is a priority. This position is further supported by the work of Huong et al.¹¹ who found health workers needed to develop strategies to reduce adverse psychological impacts and psychiatric symptoms during the epidemic. The findings from this small-scale study suggest that the students received enhanced support from several sources which enabled their transition to becoming new registrants easier.

The PEs and the academics described how the students had a rapid transition into a professional role and how being on a register meant that they were working as an autonomous radiographic practitioner where they had to take on accountability and responsibility.¹² They suggested it was an easy decision for them to facilitate the students joining the register early as they had confidence in the students' competence and capability. They acknowledged that the students initially were a bit apprehensive when going into practice, but their anxiety dissipated quite quickly once they realised that they were more competent than they realised and were able to perform the clinical tasks requested of them.¹³ The PEs said the students *'pretty much flew as new registrants'*; that they were *'motivated'* and *'pragmatic'* and understood the responsibility they had towards users of their services and the individual responsibility which required them to abide by current legislation and healthcare policy.¹²

Communication is an essential skill; it is important to ensure that appropriate messages are disseminated to all involved in any process. This was never more critical than when dealing with the COVID-19 pandemic.² The complexity of this time within the healthcare environment meant that there needed to be robust communication processes in place to avoid any confusion. Good communication transcends across organisational boundaries,¹⁴ and can be challenging at times particularly between NHS organisations and higher education institutions. However, during the first phase of the COVID-19 pandemic the PEs, academics and clinical staff worked in close collaboration to ensure that all the necessary process and procedures were in place for the students to join the register, be trained in the new ways of working and feel adequately supported.

It is recognised that clear communication of what students can expect on clinical placement is essential to ease placement anxiety in pre-Covid times.¹⁵ The need for clear and transparent communication regarding placements was never more critical than when dealing with the COVID-19 pandemic.¹⁶ The complexity of ensuring the students were supported meant that there needed to be robust communication processes in place to avoid confusion. A variety of communication strategies were used by the academic staff to keep in

touch with the final year students, most used virtual platforms and as online learning has matured to virtual classrooms and simulations, its use has grown in its acceptance over the years.^{17,18} Despite this, however, capability in using the technology proved to be a significant learning curve for all participants. However, the PEs and academics maintained that it was important to have robust communication processes in place to support the health and well-being of the students. Routinely academic staff would have limited contact with all students during placements, with their main focus being on students who needed extra support, but during this period they had weekly contact with the majority of them. Participants suggested that the more regular communication gave an enhanced support system to the students and had a positive impact on their learning.^{19,20}

It was reported that individual's experiences of stress and anxiety were two of the first challenges the PEs and academics had to actively acknowledge and explore so that the students felt able to air their fears and concerns. This exploration was considered vital by them as suffering from stress inhibits learning and can hamper the updating of memory in the light of new information.²¹ The PE's and academic's recognition of the anxiety and stress levels in the students during early interactions prior to them being included on the register suggests an advanced understanding of the challenges of learning while under stress.

The academics and PEs suggested that the emotional impact the students experienced whilst caring for seriously ill patients for the first time was very challenging and they ensured that the students were well supported by keeping in touch by email and some created *'virtual drop-in weekly sessions on Teams'* which proved to be very popular. Many processes had to be continually adjusted by all organisations and this required an agile response to ensure the safety and welfare of the students. Support mechanisms such as making spaces available for colleagues to rest, recuperate and reflect, known as *'wobble rooms'*, were reported as positively influencing student well-being.

One of the most striking findings from this research is that the enhanced expectations placed on students, such as taking full accountability for care delivery assisted their professional development and ability to cope. This was particularly evident in the case of participants working in clinical teams during a period of heightened anxiety which aided team cohesion and their confidence. These trends in levels of psychological distress and factors such as exposure to infected people and psychological assistance needed for staff were also identified in a study conducted in China where the pandemic first started. The findings from this study emphasize the importance of being prepared to support frontline workers through mental health interventions at times of widespread crisis.²²

Participants described how the feedback they received from students was really positive about the support they received from their colleagues in clinical practice. The PEs said that they observed greater integration within clinical teams, increased ownership of practice which comes from being fully engaged in one's work and feeling a sense of pride in one's profession.²³ In addition, the new registrants felt empowered and respected for their contribution, demonstrated greater motivation to deliver high quality care, as well as feeling more confident in their roles. The academics said that there appeared to be a more mature attitude from the new registrants, but they suggested that having them working in Band 4 roles initially for this final placement really helped with their transition to becoming competent Band 5 registrants. This was echoed by comments received by the PEs and academics from the students who suggested that changing the curriculum in the future in a non-

emergency situation to allow for early temporary registration and allowing them to work as Band 4 APs would increase their levels of accountability and responsibility to the delivery of care.

Conclusion

This small-scale study explored the experiences of academics and PEs supporting final year radiography students who joined their regulatory register early during the COVID-19 pandemic. The findings suggest that there were challenges for everybody initially getting the students onto the HCPC temporary register. Both the academics and the PEs considerably changed the way they worked and communicated with the students and they indicated that many of these changes will continue to be part of the way that they work, as there some positive lessons learnt. Virtual platforms proved an essential method of supportive communication, academic assessment and reflective discussion and these will continue to be used. Although the participants observed some anxiety in the students prior to their employee status they were well supported and were integral in clinical teams. They suggested the students embraced their autonomy which enabled them to feel more confident in their transition to full registration. All participants in this study suggested the emergency changes made to their curriculum because of the pandemic should be maintained as they observed a much smoother transition to registration for this group of students.

There are several learning points here that can be taken forward by both the PEs and academic staff which can enhance the education of future students; use of online platforms and changes to their final placement being the main suggestions that arose from the data. It was clear from the feedback that having a long practice placement in year three of the course already benefited the students, but the participants also suggested that a paid placement as a Band 4 AP in the last six-eight weeks of the course would provide additional benefits in terms of professional responsibility and transition to registration and ultimately patient care. The researchers are currently looking at a national survey amongst radiography educators to see if there is an appetite for such a change.

Conflict of interest statement

None.

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References

- Bates J. Why the wobble room is a necessary sanity saver. *Nurs Stand* 2020. RCNi. Available at, <https://rcni.com/nursing-standard/opinion/comment/why-wobble-room-a-necessary-sanity-saver-161236>.
- Health and Care Professions Council. *Communicating during the COVID-19 pandemic*. Available at, <https://www.hcpc-uk.org/covid-19/advice/applying-our-standards/communicating-during-the-covid-19-pandemic/>, 2020. [Accessed 17 November 2020].
- Ford M. *Covid-19 drives positive change in nurse education Covid-19 drives positive change in nurse education*. Nursing Times; 2020.
- Department of Health and Social Care. *We are the NHS: people Plan for 2020/2021- action for us all*. London: DH; 2020.
- Lapworth S. *What students are telling us about learning during lockdown*. 2020. <https://www.officeforstudents.org.uk/news-blog-and-events/blog/what-students-are-telling-us-about-learning-during-lockdown/>. [Accessed 14 November 2020].
- Bryman A. *Social research methods*. 4th ed. Oxford: Oxford University Press; 2015.
- Ingham-Broomfield R. A nurses guide to qualitative research [online]. *Aust J Adv Nurs* 2015; **32**(30):34–40.
- Ritchie J, Spencer L. Qualitative data analysis for applied policy research. In: Huberman A, editor. *The qualitative research companion*. Thousand Oaks: Sage; 2002. 2002.
- Research Governance Framework. *Research governance framework for health and social care*. 2nd ed. DH; 2005.
- General Data Protection Regulations*. 2018. Available at, <https://gdpr-info.eu/>. [Accessed 14 November 2020].
- Le HT, Lai AJ, Sun J, Hoang MT, Vu LG, Pham HQ, et al. Anxiety and depression among people under the nationwide partial lockdown in Vietnam. *Front Public Health* 2020. <https://doi.org/10.3389/fpubh.2020.589359>.
- Society and College of Radiographers (SCoR). *Code of conduct and ethics*. 2020. <https://www.sor.org/learning/document-library/code-conduct-and-ethics/1-scope-professional-practice>. [Accessed 17 November 2020].
- Tyne S. *Critical thinking and clinical judgment in novice registered nurses*. Available at, <https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=6101&context=dissertations>, 2018. [Accessed 14 November 2020].
- Kodama Y, Fukahori H. *Nurse managers' attributes to promote change in their wards: a qualitative study*. 2017. <https://doi.org/10.1002/nop2.87>.
- George TP, DeCristofaro C, Murphy PM. Self-efficacy and concerns of nursing students regarding clinical experience. *Nurse Educ Today* 2020; **90**. <https://doi.org/10.1016/j.nedt.2020.104401>.
- Health Care Professions Council. *Communicating during the COVID-19 pandemic*. Available at, <https://www.hcpc-uk.org/covid-19/advice/applying-our-standards/communicating-during-the-covid-19-pandemic/>, 2020. [Accessed 19 August 2020].
- Dhawan S. Online learning: a panacea in the time of COVID-19 crisis. *J Educ Technol Syst* 2020. <https://doi.org/10.1177/0047239520934018>. Available at.
- Gazza A. The experience of teaching online in nursing education. *J Nurs Educ* 2017; **56**(6):343–9. <https://doi.org/10.3928/01484834-20170518-05>.
- Ong GL. Using final placements to prepare student nurses. *Nurs Times* 2013; **109**(12–14):3.
- Ong G, Graham L, Gbadebo E. Supporting the transition from student to newly qualified nurse. *Nurs Times [online]* 2019; **115**(4):50–2.
- Schwabe L, Vogel S. Learning and Memory under stress: implications for the classroom. *NPJ Sci Learn* 2016; **1**. Article number: 16011.
- Kang L, Ma S, Chen M, Yang J, Wang Y, Li R, et al. *Impact on mental health and perceptions of psychological care among medical and nursing staff in Wuhan during the 2019 novel coronavirus disease outbreak: a cross-sectional study*. 2020. Available at: The mental health of medical workers in Wuhan, China dealing with the 2019 novel coronavirus - PubMed (nih.gov). [Accessed 27 November 2020].
- Sherman R. *Promoting professional accountability and ownership*. 2019. Available at: Promoting Professional accountability and ownership - American Nurse (myamericannurse.com). [Accessed 27 November 2020].