



## Open Research Online

### Citation

Watson, Naomi A. and De-Lappe, Joseph (2023). Student nurses, nursing curriculums and emergency responses to Covid-19: A scoping review. *Science Talks*, 6, article no. 100211.

### URL

<https://oro.open.ac.uk/88397/>

### License

(CC-BY 4.0) Creative Commons: Attribution 4.0

<https://creativecommons.org/licenses/by/4.0/>

### Policy

This document has been downloaded from Open Research Online, The Open University's repository of research publications. This version is being made available in accordance with Open Research Online policies available from [Open Research Online \(ORO\) Policies](#)

### Versions

If this document is identified as the Author Accepted Manuscript it is the version after peer review but before type setting, copy editing or publisher branding



## Student nurses, nursing curriculums and emergency responses to Covid-19: A scoping review

Naomi A. Watson <sup>\*</sup>, Joseph De-Lappe

The Open University, Faculty of Wellbeing, Education and Language Studies, School of Health, Wellbeing and Social Care, Milton Keynes MK7 6AA, UK

### ARTICLE INFO

#### Keywords:

Student nurses  
Nursing curriculums  
E-learning  
Covid-19  
Emergency healthcare responses

### ABSTRACT

**Background:** Emergency healthcare responses to COVID-19 substantially impacted on nursing curriculums and student nurses worldwide. Understanding the extent of this impact on their learning experiences could inform nursing curriculums going forward.

**Objective:** Identify the range and nature of literature related to emergency healthcare response to COVID-19 and its impact on student nurses and nursing curriculums. Explore and analyze the findings within the searched literature. Position findings within the broader context of the ongoing impact of COVID-19 on nursing curriculums. Identify gaps in the literature.

**Design:** Using the Johanna Briggs Institute (JBI) methodology, we conducted a scoping review of literature published in the English language from 2019 to 2021. Search strategy included specific search terms used to search five online databases: CINAHL, ProQuest, and PubMed and OVID, and Google Scholar. A narrative approach was used to synthesize the identified papers.

**Results:** 356 papers were retrieved through initial database and hand searches; 260 once duplicates were removed. Close assessment by title, abstract, and full paper using inclusion/exclusion criteria narrowed this to 16 relevant articles.

**Conclusions:** This review did not assess for quality, however selected studies were themselves emergency responses to COVID-19, conducted in haste, so reviewers deemed the quality of evidence to be impacted by this. They suggest healthcare responses to COVID-19 have been highly disruptive for many student nurses. Studies focused almost entirely on face-to-face traditional nurse learners, with distance learners only mentioned in passing in two papers.

Video and Presentation to this article can be found online at <https://doi.org/10.1016/j.sctalk.2023.100211>.

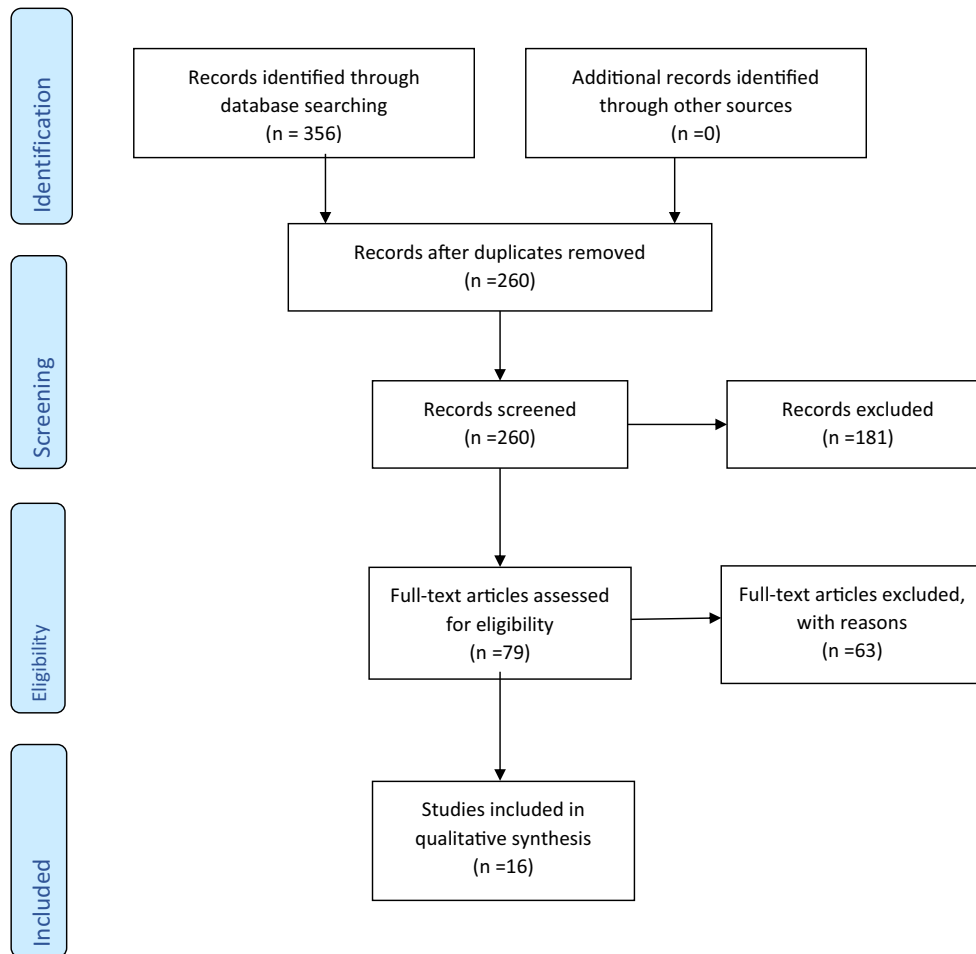
### Figures and Tables

**Table 1**  
Initial search strategies conducted on PubMed.

Search Number	Query	Sort By	Filters	Results
1	("student nurses" or "nursing students") AND ("2019/12/01"[Date-Publication]) : "3000"[Date-Publication])	Publication Date	Abstract, English	2732
2	("nursing curriculum" OR "emergency response") AND ("2019/12/01"[Date-Publication] : "3000"[Date - Publication])	Publication Date	Abstract, English	1009
3	("SARS-COV-2" OR "COVID-19" OR "novel coronavirus" OR "2019-nCov") AND ("2019/12/01"[Date-Publication] : "3000"[Date-Publication])	Publication Date	Abstract, English	92,393

\* Corresponding author.

Appendix 1. PRISMA flow diagram of screening process



Appendix 2. Extraction tables for selected studies

Author(s) (Year) Country	Method and Research Design	Aim of Study	Sample	Key Findings	Nursing Students	Nursing Curriculums	Blended/Distance Learning
Aslan and Pekince [11] Turkey	Quantitative online questionnaire using Perceived Stress Scale (PSS)	To evaluate nursing students' views on the COVID 19 pandemic and their perceived stress levels.	N = 662 Nursing students on F2F courses	The average score on the PSS was 31.69 ± 6.91, indicating that the students had a moderate level of stress. Significant differences in PSS score were found in terms of age and sex (P < .001 and P < .001, respectively).	Results indicated that 48% of the students frequently consumed news about the COVID 19 pandemic, and 91.5% followed the developments in other countries. It was determined that 68.1% of students were worried about being infected, and 78.9% thought they took adequate measures against infection.	Age was found to have an effect on the level of stress perceived by the students, and there were statistically significant differences in PSS score between age groups (P < .001). The level of stress perceived by those between the ages of 18 to 20 was higher. There were significant differences in PSS score in terms of sex (P < .001). It was observed that the stress level perceived by female students was higher than that of male students	Not reported

(continued)

Author(s) (Year) Country	Method and Research Design	Aim of Study	Sample	Key Findings	Nursing Students	Nursing Curriculums	Blended/Distance Learning
Bogassian et al. [1] Australia	Evidence informed editorial	To rapidly consider the value proposition of a number of nursing student options to respond to the COVID-19 crisis and ensure the future of the nursing workforce.	$N = 3$ senior nursing educators reflecting on disruptions to F2F learning	Challenge in balancing the nursing workforce response to the COVID-19 crisis and maintaining the professional experiences and clinical learning of nursing students to ensure the future of the nursing workforce. 5 options considered	1. Full retention of the current student workforce on clinical placement. 2. Full cessation of the current student workforce on clinical placement. 3. Modified retention of the current student workforce in clinical placements	4. Fast tracking nursing student registration and entry to the workforce	5. Continuing to provide clinical education of nursing students in alternate clinical environments
Cici and Yilmazel [19] Turkey	Mixed methods online questionnaire using State Anxiety Scale and Beck Anxiety Inventory.	To determine the anxiety level of candidate nurses and capture their perspective on the nursing profession in light of the coronavirus disease	$N = 322$ nursing students on F2F courses	Positive perspectives (63.4%) on the nursing profession before the pandemic decreased to 50.6%, whereas the negative (26.7%), and the undecided (9.9%) perspectives increased to 32.3% and 17.1%, of the total respectively.	A significant increase was found in the anxiety scores with negative perspectives combined with an unwillingness to practice their profession in the future ( $P < .05$ ).	Pre-graduate training should be provided to candidate nurses about pandemic nursing and professional difficulties they may possibly encounter in infection epidemics.	Not reported
Collado- Bora et al. [12] Spain	Qualitative focus- group interviews	To study the perceptions of medical and nursing students about their voluntary incorporation into the health system caused by COVID-19	$N = 29$ final year nursing students and $n = 33$ final year medical students, recruited through convenience sampling, on F2F courses, and 85% of whom reported voluntarily entering the health system during COVID-19	Results highlighted two main categories and a total of five subcategories of feelings. The main feelings collected regarding mood were negative, represented by uncertainty, nervousness, and fear	Nursing students responses not distinguished from medical students: fears of 1) infection, 2) transmission to others, and 3) health system breaking down	Nursing student responses not distinguished from medical students: 1) lack of professional knowledge and skills, and 2) fear to cope and manage difficult situations	Not reported
Dutta et al. [2] India	Quantitative online questionnaire	To assess to assess the satisfaction level of medical and nursing students during a shift to online teaching	$n = 145$ nursing students, and $n = 919$ medical students, on F2F courses	The majority of the students were dissatisfied (42%) with online learning	There was no significant difference in dissatisfaction levels between medical and nursing students ( $p = .192$ ).	The maximum satisfaction index (78.23%) was observed with faculties being supportive and responsive in resolving the queries and the minimum (46.39%) was observed with issues related to communication and discussion with peer students	Online learning is essential at current times but is not an effective alternative for medical and nursing education. Face-to-face classes and practical sessions along with online learning can be a viable option.
Fitzgerald and Konrad [13] USA	Qualitative web-based sur- vey	To explore anxiety and stress experienced by first semester nursing students and identify sources of support during a transition from a face to face to an online learning platform during the first months of the COVID 19 pandemic.	$n = 50$ nursing students on F2F courses, two months after the completion of their first semester	The most commonly reported symptoms were difficulty concentrating (90%) and feeling anxious or overwhelmed (84%). Most respondents reported anxiety related- to the pandemic, with 84% being concerned about a friend or relative contracting COVID 19, and with 70% fearful of becoming infected themselves.	The majority of respondents expressed concerns related to difficulty handling academic workload (62%), and the need to perform well in school (56%).	Transition from a face to face to an online learning platform during the first months of the COVID 19 pandemic	To decrease anxiety and stress, the faculty should foster a structured learning environment; abide by the course schedule; communicate changes or updates in a timely fashion; adapt assignments to fit the learning environment; utilize campus, local, state, and national resources; practice self-care; and extend grace. Not reported
Gagne et al. [14] USA	Qualitative analysis of tweets on Twitter by nursing students	To explore the nature and content of tweets posted by nursing students	$N = 95$ self-identified nursing students posting 8856 tweets from their Twitter accounts in the United Kingdom, the United States, and South Korea during the COVID-19 pandemic between	The findings revealed five categories of tweet content: (i) reactions to COVID-19; (ii) everyday life; (iii) role as a student; (iv) social connections; and (v) socio-political issues.	All groups described stress and anxiety related to the uncertainty caused by the pandemic while attempting to maintain humour and positivity. Students talked about their schoolwork, the high burden of	The findings can inform nurse educators to better understand their students' responses to and sentiments about the COVID-19 pandemic. Nurse educators should incorporate this understanding into	Not reported

(continued on next page)

(continued)

Author(s) (Year) Country	Method and Research Design	Aim of Study	Sample	Key Findings	Nursing Students	Nursing Curriculums	Blended/Distance Learning
			March 4 and April 7, 2020.		assignments, learning content, quality of online lectures, and dissatisfaction with or gratitude for their professors.	curricula for pandemic preparedness and response efforts.	
Garcia-Gonzalez et al. [15] Spain	Quantitative online questionnaire using Spielberger State-Trait Anxiety Inventory (STAI)	To analyze state-trait anxiety levels of nursing students because of e-Learning during two periods of the COVID-19 confinement	N = 460 nursing students on F2F courses completing the questionnaire twice (weeks 1&4 of covid confinement)	Total anxiety levels increased in the fourth week as compared to the first week (first week: 50.4 ± 20.8 and fourth week: 59.9 ± 10.6 (p < .001))	Significant predictors for STAI anxiety in nursing students were being in the last year of the degree program, being female, and spending confinement in a house without a garden.	Shift to e-learning	The sudden shift to exclusive e-learning instructional methods has raised anxiety levels in nursing students, especially those in their last academic year.
Gomez-Ibanez et al. [16] Spain	Qualitative interview using Colizzi's method	To clarify the experiences of final-year year nursing students employed to provide nursing care during the COVID-19 pandemic in Spain	N = 20 final-year nursing students on F2F courses	Participants described being called for nursing duty in a pandemic situation while being final-year nursing students as a two-sided experience: one stressful, due to the unknown and fears; the other fulfilling, due to satisfying their need to serve the sick	Students felt a commitment to society, the profession, and individuals in the fight against COVID-19. Their commitment led to sacrifices, such as consolidating their studies and exposing themselves to potential contagion: these circumstances created feelings of immense social pressure.	Nursing education programs in Spain should include training in managing complex situations, placing significant emphasis on decision-making under pressure to increase preparedness for pandemic response.	Not reported
Langegård et al [3] Sweden	Qualitative focus group interviews followed by an online questionnaire	To describe and evaluate nursing students' experiences of the pedagogical transition from traditional campus-based learning to distance learning using digital tools.	Nursing students on F2F courses recruited for focus groups (n = 9) and an online questionnaire (n = 96)	The analysis of the focus group interviews extracted three main dimensions: didactic aspects of digital teaching, study environment, and students' own resources. Social interaction was an overall theme included in all three dimensions	67% of students preferred campus lectures to distance learning with digital tools. 33% students preferred distance learning with digital tools to campus lectures	This study highlighted the importance of social interactions among students and between students and teachers as an important part of the students' learning process	Results support a blended learning approach, including both campus based and distance learning, which may offer pedagogical benefits, including important social interactions that amplify students' learning process and motivation.
Lovric et al. [4] Croatia	Qualitative web-based survey	To explore how nursing students perceive the COVID-19 crisis and what their personal experiences were while studying during the global pandemic	N = 33 BSc nursing students, on a F2F course	The results indicate students have somewhat divided opinions about the effectiveness of state institutions and their information policies in Croatia	Participants focused their perceptions on the efficiency of state institutions and the behavior of the population during the COVID-19 crisis. 21 believed state institutions acted effectively to control the population, and 12 did not	Mild fear of becoming infected in the classroom [5]. Severe fear of becoming infected in the clinical setting [6]. Learning difficulties due to impact of COVID-19 (13)	Satisfaction with distance learning [7]
Olum et al. [8] Uganda	Quantitative online questionnaire	The plausibility of online learning platforms to support medical education in low resource settings	N = 49 nursing students and n = 165 medical students on F2F courses	Only 57 (26.6%) respondents had access to high or very high-quality internet access. Internet costs and poor internet connectivity were the most important barriers to e-learning reported by 199 (93%) and 179 (84%) students, respectively	About half (n = 104, 49%) of the students believed that e-learning reduces the quality of knowledge attained and is not an efficient method of teaching. Monthly income (P = .006), internet connectivity quality (P < .001), computer ownership (P = .015) and frequency of usage of academic websites or applications (P = .006) significantly affected attitudes towards e-learning.	Sensitization and training of students and faculty on e-learning and use of existing learning platforms are important to improve the attitude and use of e-learning	Blended online and use of offline downloadable learning materials would overcome the challenges related to the variable quality of internet access in the country.

(continued)

Author(s) (Year) Country	Method and Research Design	Aim of Study	Sample	Key Findings	Nursing Students	Nursing Curriculums	Blended/Distance Learning
Ramos-Morcillo et al. [17] Spain	Semi-structured interviews using COREQ checklist	To discover the learning experiences and the expectations about the changes in education, in light of the abrupt change from face-to-face to e-learning education, of nursing students	N = 32 nursing students on F2F courses	The imposition of e-learning sets limitations for older students, those who live in rural areas, with work and family responsibilities and with limited electronic resources	Participants indicated the situation affects their future plans and expectations related with obtaining their degree and work. They believe that they can be singled out for missing education, their international training is paralyzed, and they are afraid	Online teaching has allowed substituting the teaching of theory, although face-to-face teaching is preferred, at the same time it has shown that clinical practices are indispensable for the training of the nursing students.	Online education goes beyond a continuation of the face-to-face classes.
Ulenaers et al. [18] Belgium	Quantitative cross-sectional online questionnaire	To study nursing students' experiences during clinical placement during the COVID-19 pandemic	N = 665 nursing students on F2F courses	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.	When asked what 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) as a limitation, and the remaining part was neutral (27.52%, n = 183)	Students were frustrated about the school's expectations towards their learning objectives during clinical placement as they often experienced fewer learning opportunities	Not reported
Usher et al. [9] Australia	Evidence informed editorial	To reflect on The mental health impact of COVID-19 on pre-registration nursing students in Australia	N = 5 senior nursing educators reflecting on disruptions to F2F learning	We raise concerns about the long period of social disruption students have and are experiencing, and the effects of this on their short- and longer-term mental health outcomes.	Attending classes and other study-related activities are important aspects of life for students and for many students, the routine associated with university activities is a way of coping as well as a way of staying connected with classmates, friends, and teachers	Nursing faculty and schools adopt measures to actively assist students during this pandemic (illustrated with a table of measures and suggestions to actively assist students)	Many students choose to attend on-campus classes rather than enrol in online units due to their personal learning styles, the ability of face-to-face learning to meet any of their special needs, or to have regular access to peer support.
Webster [10] UK	Qualitative web based survey	To explore the experience of student nurses who opted out of frontline care during COVID-19	N = 198 nursing students who could not or would not accept the offer of a paid placement	People should not assume students are opting out for their own or a family member's health reasons. Their choice might be based on their values, beliefs and opinions on the matter. The survey shows that the majority of students who chose to opt out have had a negative experience.	Students felt pressure from their peers (53%) and pressure from their institutions (48%) regarding their choices. 72% indicated that peer and institutional pressure did not affect their choice, while 28% indicated it did.	31% of students felt very unprepared for the nursing program going forward (AV: 2.36 out of five where 1 = very unprepared, 5 = very prepared)	Not reported

**CRedit author statement**

Naomi A Watson: Conceptualization, methodology, writing, editing, reviewing.

Joseph De-Lappe: Conceptualisation; funding acquisition, project administration; Resources; Supervision; writing-review & editing.

**Data availability**

Data will be made available on request.

**Acknowledgments**

Dr. Geraldine Boyle and Dr. Elizabeth Tilley for helpful review feedback.

Dr. Ute Manecke, for librarian support.

Will Murcott, for helpful comments on methodology.

**Funding**

Funding for the research assistant conducting the database search was provided by The Open University.

## Declaration of interests

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.

## References

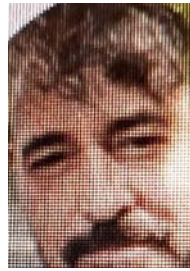
- [1] F. Bogossian, L. McKenna, T. Levett-Jones, Mobilising the nursing student workforce in COVID-19: the value proposition, *Collegian* 27 (2) (2020) 147–149.
- [2] S. Dutta, S. Ambwani, H. Lal, K. Ram, G. Mishra, T. Kumar, S.B. Varthya, The satisfaction level of undergraduate medical and nursing students regarding distant preclinical and clinical teaching amidst COVID-19 across India, *Adv. Med. Educ. Practice* 12 (2021) 113.
- [3] U. Langegård, K. Kiani, S.J. Nielsen, P.-A. Svensson, Nursing students' experiences of a pedagogical transition from campus learning to distance learning using digital tools, *BMC Nurs.* 20 (1) (2021) 1–10.
- [4] R. Lovrić, N. Farčić, Š. Mikšić, A. Včev, Studying during the COVID-19 pandemic: a qualitative inductive content analysis of nursing students' perceptions and experiences, *Educ. Sci.* 10 (7) (2020) 188.
- [5] N. Shaukat, D.M. Ali, J. Razzak, Physical and mental health impacts of COVID-19 on healthcare workers: a scoping review, *Int. J. Emerg. Med.* 13 (1) (2020) 1–8.
- [6] H. Arksey, L. O'Malley, Scoping studies: towards a methodological framework, *Int. J. Soc. Res. Methodol.* 8 (2005) 19–32, <https://doi.org/10.1080/1364557032000119616>.
- [7] A.J. Ramos-Morcillo, C. Leal-Costa, J.E. Moral-García, M. Ruzafa-Martínez, Experiences of nursing students during the abrupt change from face-to-face to e-learning education during the first month of confinement due to COVID-19 in Spain, *Int. J. Environ. Res. Public Health* 17 (15) (2020) 5519.
- [8] R. Olum, L. Atulinda, E. Kigozi, D.R. Nassozi, A. Mulekwa, F. Bongomin, S. Kiguli, Medical education and E-learning during COVID-19 pandemic: awareness, attitudes, preferences, and barriers among undergraduate medicine and nursing students at Makerere University, Uganda, *J. Med. Educ. Curric. Dev.* 7 (2020) 2382120520973212.
- [9] K. Usher, N. Bhullar, D. Wynaden, J. Durkin, D. Jackson, The Mental Health Impact of COVID-19 on Pre-Registration Nursing Students in Australia, 2020.
- [10] B. Webster, Students during the pandemic: what is the experience of those who opted out? *Br. J. Nurs.* 29 (14) (2020) 828–829.
- [11] H. Aslan, H. Pekince, Nursing students' views on the COVID-19 pandemic and their perceived stress levels, *Perspectives in psychiatric care* 57 (2) (2021) 695–701.
- [12] E.J. Collado-Boira, E. Ruiz-Palomino, P. Salas-Media, A. Folch-Ayora, M. Muriach, P. Baliño, The COVID-19 outbreak—An empirical phenomenological study on perceptions and psychosocial considerations surrounding the immediate incorporation of final-year Spanish nursing and medical students into the health system, *Nurse education today* 92 (2020) 104504.
- [13] A. Fitzgerald, S. Konrad, Transition in learning during COVID-19: Student nurse anxiety, stress, and resource support, *Nursing Forum* (2021), <https://doi.org/10.1111/nuf.12547>.
- [14] De Gagne, E. Cho, H.K. Park, J.D. Nam, D. Jung, A qualitative analysis of nursing students' tweets during the COVID-19 pandemic, *Nursing & Health Sciences* 23 (1) (2021) 273–278.
- [15] García-González, J., Ruqiong, W., Alarcon-Rodriguez, R., Requena-Mullor, M., Ding, C., & Ventura-Miranda, M. I. (2021). Analysis of Anxiety Levels of Nursing Students Because of e-Learning during the COVID-19 Pandemic. *Healthcare* 2021, (9) 252
- [16] R. Gómez-Ibáñez, C. Watson, J.M. Leyva-Moral, M. Aguayo-González, N. Granel, Final-year nursing students called to work: Experiences of a rushed labour insertion during the COVID-19 pandemic, *Nurse Education in Practice* 49 (2020) 102920.
- [17] A.J. Ramos-Morcillo, C. Leal-Costa, J.E. Moral-García, M. Ruzafa-Martínez, Experiences of nursing students during the abrupt change from face-to-face to e-learning education during the first month of confinement due to COVID-19 in Spain, *International journal of environmental research and public health* 17 (15) (2020) 5519.
- [18] D. Ulenaers, J. Grosemans, W. Schrooten, J. Bergs, Clinical placement experience of nursing students during the COVID-19 pandemic: A cross-sectional study, *Nurse education today* 99 (2021) 104746.
- [19] R. Cici, G. Yilmazel, Determination of anxiety levels and perspectives on the nursing profession among candidate nurses with relation to the COVID-19 pandemic, *Perspectives in psychiatric care* 57 (1) (2021) 358–362.
- [5] R. Barranco, F. Ventura, Covid 19 and infection in health care workers: an emerging problem, Available at: <https://doi.org/10.1177/0025817220923694?cid=nt-sj-full-text.similar-articles.3> 2020 [Accessed December 6<sup>th</sup> 2021].
- [6] W.M. DeSouza, L.F. Buss, D.D.S. Candido, J.P. Carrera, et al., Epidemiological and clinical characteristics of the COVID-19 epidemic in Brazil, Available at: <https://pubmed.ncbi.nlm.nih.gov/32737472/> 2020 [Accessed Dec. 6<sup>th</sup> 2021].
- [7] H. Oshitani, Cluster based approach to Corona Virus Disease 2019 (Covid-19) in Japan, Available at: [https://www.jstage.jst.go.jp/article/yoken/advpub/0/advpub\\_JJID.2020.363/article-char/ja/](https://www.jstage.jst.go.jp/article/yoken/advpub/0/advpub_JJID.2020.363/article-char/ja/) 2020 [Accessed Dec. 7<sup>th</sup> 2021].
- [8] NHS England, Student doctors and nurses praised for joining 'NHS Army' to tackle historic coronavirus threat, Available at: <https://www.england.nhs.uk/2020/04/student-docs-and-nurses-praised-for-joining-nhs-army-to-tackle-historic-coronavirus-threat/> 2020 [Accessed on 6 December 2021].
- [9] Nursing and Midwifery Council, Recovery and emergency programme standards, Available at: <https://www.nmc.org.uk/standards-for-education-and-training/emergency-education-standards/> 2021 [Accessed on 6 December 2021].
- [10] C.F. Agu, J. Stewart, N. McFarlane-Stewart, T. Rae, COVID-19 pandemic effects on nursing education: looking through the lens of a developing country, *Int. Nurs. Rev.* 68 (2) (2021) 153–158.
- [11] D. Levac, H. Colquhoun, K.K. O'Brien, Scoping studies: advancing the methodology, *Implement. Sci.* (5) (2010 Sep 20) 69, <https://doi.org/10.1186/1748-5908-5-69> PMID: 20854677; PMCID: PMC2954944.
- [12] M.D.J. Peters, C. Godfrey, P. McInerney, Z. Munn, A.C. Tricco, H. Khalil, Chapter 11: Scoping reviews (2020 version), in: E. Aromataris, Z. Munn (Eds.), *JBI Manual for Evidence Synthesis*, JBI, 2020, Available from: <https://synthesismanual.jbi.global/10.46658/JBIMES-20-12>.
- [13] A.C. Tricco, E. Lillie, W. Zarin, K.K. O'Brien, H. Colquhoun, D. Levac, D. Moher, M.D.J. Peters, T. Horsley, L. Weeks, S. Hempel, E.A. Akl, C. Chang, J. McGowan, L. Stewart, L. Hartling, A. Aldcroft, M.G. Wilson, C. Garrity, S. Lewin, C.M. Godfrey, M.T. Macdonald, E.V. Langlois, K. Soares-Weiser, J. Moriarty, T. Clifford, Ö. Tunçalp, S.E. Straus, PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation, *Ann. Intern. Med.* 169 (7) (2018 Oct 2) 467–473, <https://doi.org/10.7326/M18-0850> Epub 2018 Sep 4. PMID: 30178033.
- [14] Levac D, Colquhoun H, O'Brien KK. Scoping studies: advancing the methodology. *Implement. Sci.* 2010b;5:69. Published 2010 Sep 20. <https://doi.org/10.1186/1748-5908-5-69>
- [15] D. Pollock, E.L. Davies, M.D. Peters, A.C. Tricco, L. Alexander, P. McInerney, C.M. Godfrey, H. Khalil, Z. Munn, Undertaking a scoping review: a practical guide for nursing and midwifery students, clinicians, researchers, and academics, *J. Adv. Nurs.* 77 (4) (2021) 2102–2113.
- [16] J. De Lappe, N.A. Dr Watson, W. Murcott, Student nurses, nursing curriculums, and emergency healthcare responses to Covid-19: a scoping review. Retrieved from [osf.io/whdf3](https://osf.io/whdf3), 2021 [accessed on 6 December 2021].
- [17] D. Moher, A. Liberati, J. Tetzlaff, D.G. Altman, The PRISMA Group, Preferred reporting items for systematic reviews and MetaAnalyses: the PRISMA statement, *PLoS Med.* 6 (7) (2009), e1000097, <https://doi.org/10.1371/journal.pmed1000097>.
- [18] M.D.J. Peters, Managing and coding references for systematic reviews and scoping reviews in EndNote, *Med. Ref. Serv. Quart.* 36 (1) (2017) 19–31, <https://doi.org/10.1080/02763869.2017.1259891>.
- [19] A. Fitzgerald, S. Konrad, Transition in learning during COVID-19: student nurse anxiety, stress, and resource support, *Nurs. Forum* (2021).
- [20] H. Aslan, H. Pekince, Nursing students' views on the COVID-19 pandemic and their perceived stress levels, *Perspect. Psychiatric Care* 57 (2) (2021) 695–701.
- [21] J. García-González, W. Ruqiong, R. Alarcon-Rodriguez, M. Requena-Mullor, C. Ding, M.I. Ventura-Miranda, Analysis of Anxiety Levels of Nursing Students because of e-Learning during the COVID-19 Pandemic, *Healthcare*, 2021.
- [22] D. Ulenaers, J. Grosemans, W. Schrooten, J. Bergs, Clinical placement experience of nursing students during the COVID-19 pandemic: a cross-sectional study, *Nurse Educ. Today* 99 (2021), 104746.
- [23] R. Cici, G. Yilmazel, Determination of anxiety levels and perspectives on the nursing profession among candidate nurses with relation to the COVID-19 pandemic, *Perspect. Psychiatric Care* 57 (1) (2021) 358–362.
- [24] E.J. Collado-Boira, E. Ruiz-Palomino, P. Salas-Media, A. Folch-Ayora, M. Muriach, P. Baliño, "The COVID-19 outbreak"—An empirical phenomenological study on perceptions and psychosocial considerations surrounding the immediate incorporation of final-year Spanish nursing and medical students into the health system, *Nurse Educ. Today* 92 (2020), 104504.
- [25] R. Gómez-Ibáñez, C. Watson, J.M. Leyva-Moral, M. Aguayo-González, N. Granel, Final-year nursing students called to work: experiences of a rushed labour insertion during the COVID-19 pandemic, *Nurse Educ. Pract.* 49 (2020), 102920.
- [26] J.C. De Gagne, E. Cho, H.K. Park, J.D. Nam, D. Jung, A qualitative analysis of nursing students' tweets during the COVID-19 pandemic, *Nurs. Health Sci.* 23 (1) (2021) 273–278.
- [27] R. Heffernan, K. Brumpton, D. Randles, J. Pindiyapathirage, Acceptability, technological feasibility and educational value of remotely facilitated simulation based training: a scoping review. *IN Medical Education online*, 2021 Vol 26, 2021 (1972506).
- [28] R. Barranco, F. Ventura, Covid 19 and infection in health care workers: an emerging problem, Available at: <https://doi.org/10.1177/0025817220923694?cid=nt-sj-full-text.similar-articles.3> 2020 [Accessed December 6<sup>th</sup> 2021].
- [29] J. De Lappe, N. A. Dr Watson, W. Murcott, Student nurses, nursing curriculums, and emergency healthcare responses to Covid-19: a scoping review, 2021 Retrieved from [osf.io/whdf3](https://osf.io/whdf3) [accessed on 6 December 2021].
- [30] J. Manthorpe, S. Liffé, P. Gillen, J. Moriarty, J. Mallet, H. Schroder, D. Currie, J. Ravalier, McFadden P, et al., Clapping for carers in the IN THE COVID-19 crisis: reflections in a UK survey. In health and social care in the community, Jul. 30 (4) 2022 1442–1449.
- [31] G. Mitchell, Clap For Heroes: Nurses say they do not want return of applause. *IN Nursing Times* Jan 7<sup>th</sup> 2021, 2021.

## Further reading

- [1] World Health Organisation, Coronavirus disease (COVID-19) pandemic, Available at: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019> 2021 [Accessed on 6 December 2021].
- [2] World Health Organisation, State of the World's Nursing Report – 2020, Available at: <https://www.who.int/publications/i/item/9789240003279> 2021 [Accessed on 6 December 2021].
- [3] D. Barrett, R. Heale, Covid-19: Reflections on its impact on nursing, Available at: <https://ebn.bmj.com/content/24/4/112> 2021 [Accessed 7<sup>th</sup> December 2021].
- [4] J. Billings, N.A. Sei, S. Hegarty, T. Ondruskova, E. Soulios, M. Bloomfield, T. Greene, What support do frontline workers want? A qualitative study of health and social care worker' experiences and views of psychosocial support during the Covid-19 pandemic, Available at: <https://doi.org/10.1371/journal.pone.0256454> 2021 [Accessed December 6<sup>th</sup> 2021].



**Dr. Naomi Anna Watson** is Senior Lecturer in Nursing and Deputy Associate Dean, teaching Excellence, The Open University, in the Faculty of Wellbeing, Education and Language studies (WELS).



**Dr. Joseph De-Lappe** is Research Associate in the Faculty of WELS.