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Citation: Malamateniou, C. (2022). The legacy of COVID-19 for radiography practice, education, and research: How to use lessons learned to navigate the "new normal"?. *Radiography*, 28(Supp 1), S9-S12. doi: 10.1016/j.radi.2022.09.003

This is the accepted version of the paper.

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Permanent repository link: <https://openaccess.city.ac.uk/id/eprint/29307/>

Link to published version: <https://doi.org/10.1016/j.radi.2022.09.003>

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Title page

Guest Editorial

The legacy of Covid-19 for Radiography practice, education, and research: how to use lessons learned to navigate the “new normal”?

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The impact of covid-19

Covid-19 has disrupted everyone's lives in so many ways over the last 2.5 years: societal norms, the ways we communicate, we interact, from children to young adults, to the elderly, from transport, to healthcare, to education, to business; nobody was expecting the impact would be so vast or last for so long^{1,2}.

The impact on healthcare and Radiography, which was on the frontline of diagnosis, patient management and treatment monitoring of Covid-19 patients, but also on education and research has been immense and still not fully accounted for³⁻⁶. Social distancing and lockdowns meant that research projects were adapted, otherwise interrupted, grants had to be extended, bridged or stopped outright, teaching had to be adjusted accordingly and online and remote solutions had to be employed, where necessary and feasible, in Academia^{7,8}.

After such a prolonged period of increased workload under challenging circumstances, often without the necessary resourcing or staffing levels, while frequently witnessing serious illness or death of colleagues, friends and close family, occupational burnout, and post-traumatic stress disorder (PTSD) has been rife among healthcare professionals^{9,10}. At the peak of the pandemic, where demand for healthcare resources could not meet supply, difficult decisions had to be made; healthcare professionals, including radiographers, were immersed in challenging situations, trying to balance between often conflicting or constantly changing patient safety guidelines and patient care principles. They realised that very often, despite the quality of care they aspired to provide, due to the Covid-19 restrictions, they could not offer the human touch to their patients when they mostly needed it and this has led to moral injury among healthcare workers^{11,12}.

Learning to live in the “new normal” and harnessing the opportunities

The pandemic has not yet finished; There is consensus that it is here to stay, but hopefully we will learn to live with it in ways that are not disrupting our lives anymore. While it has magnified societal challenges, like inequalities or accessibility to healthcare and education and has put a

demanding, long-term stress test on all human relationships, the pandemic has also highlighted unique opportunities for work patterns and collaboration and jumpstarted innovation in science, technology, and medicine, among other areas of life^{13,14}.

The Covid-19 recovery event at City, University of London

Before we can be ready to navigate the “new normal”, we need to understand the lessons learnt, knowledge that is much needed for a smooth recovery of services, for the healing of human relationships, for harnessing innovative tools and for supporting those who mostly need it.

For this reason, on Friday June 17th 2022, at City, University of London, we organised a special, by-invitation-only, event, titled “*Covid-19 recovery: the way forward for radiography practitioners*”. It was held at the main lecture theatre and conference atrium of the campus at Northampton Square and it was funded by a special call of the higher education innovation funding (HEIF) or UK Research and Innovation (UKRI). It was led by the Department of Radiography academics at City, University of London, in close collaboration with the Society and College of Radiographers (SCoR). More than 70 delegates from across the UK, including academics, researchers, educators, clinical practitioners, managers from NHS trusts and private clinics, representatives from Health Education England, and from professional bodies attended this event. In the audience there was also an impressive number of five Presidents of the SCoR (including past, current, and future), underlining the commitment to support all radiography professionals moving forward. There was also representation from the editorial board of the *Radiography Journal*, and from the Deanery of the School of Health and Psychological Sciences at City, University of London.

The day was introduced by Mr Richard Thorne, as acting head of the Department of Radiography at City, University of London and the event was divided into two distinct sessions. In the first one, chaired by Dr Rachel Harris, professional officer, and research lead of the SCoR, the impact of Covid-19 on different radiography professionals was recounted, through the results of different

research studies funded by the College of Radiographers special Covid-19-themed College of Radiographers Industry Partnerships Scheme (CORIPS) call. These presentations discussed the impact on clinical practitioners, students, and recently qualified professionals, as well as on researchers and academics. Academics and researchers from different Universities in the UK (City, University of London, University of Suffolk, Cardiff University) and Ireland (University College Cork) presented these studies, highlighting the strong impact of the pandemic on the physical and mental wellbeing of radiographers (figure 1).

Ways forward for recovery were discussed in the second session, chaired by Mrs Sandie Mathers, former president of SCoR and current Chair of College Board of Trustees and by Ms Judy Brook, Associate Dean for Partners and Clinical Placements, at City, University of London. These discussions covered all different areas of practice. The Siemens Healthineers team kindly sponsored this event and presented two related talks.

Two separate interactive workshops discussing ways forward, one for academics, educators and researchers, and the other for clinical practitioners and radiology managers ran in the afternoon at the end of the two didactic sessions. Participants consented to results of these workshops to be shared for research and educational purposes (Ethics Reference: ETH2122-1254). These results included written accounts on Padlet, drawings by the dedicated artist-in-residence for this event, Sarah Smith (also a radiographer), capturing some of the core topics and discussions during the sessions, as well as notes taken during the workshops by dedicated research assistants and presented by workshop facilitators to the whole group at the end. Figure 2 presents a selection of these drawings.

Ways forward for Radiography clinical practice, academic and research and training needs

While the impact of Covid-19, as discussed during the event, was significant, different aspects of this impact have been presented in earlier publications, as outlined above. Importantly, the emphasis of this event was drawn to finding solutions and ways forward, to enable the much

needed recovery. Some of these solutions proposed are presented below, with the hope that a more detailed version of this unique knowledge, as shared by key stakeholders of the radiography profession, will also be submitted as an original research publication.

The important role of compassionate leadership (from senior to middle management) to support and repair current clinical services but also academic work was underlined in these discussions as a strong, recurrent theme.

Addressing staffing issues, improving work conditions and work environment, including emphasising staff wellbeing and enabling a culture to allow better work-life balance, support of annual leave requests to allow for much needed breaks, fair compensation to address the rising costs of living, investing in staff training and practice educators for better student support and preceptorship in clinical settings, facilitating stronger recruitment, including from international candidates, and better retention initiatives, increasing the visibility of the profession in society but also in senior management to ensure a place at the decision making table, were all mentioned as part of the clinical radiography service recovery.

Similarly, the academics stressed the need to maintain flexible working, including hybrid working conditions for the longer term, investing in staff personal development, stronger support for the practice educators who deliver training on clinical sites, provision of comprehensive funding for apprenticeships, as another route to radiography training, engagement with and advancement of with innovative use of simulation for different aspects of learning and to allow better transition of students from theory to clinical placements, promoting a research and evidence based culture in clinical practice to enable better collaboration with HEIs, employing the gains on technology to support all learners (recordings, of lectures, use of captions, group work) as required, allow more student rotations to enhance and enrich their experience across different sites and increase parity of learning.

Finally, a strong desire for more training provision and personal development opportunities was supported by all participants as necessary for job satisfaction, evidence of recognition by senior

management but also for increasing employability. These educational needs, as outlined by workshop participants, included training and courses on leadership and management, personal wellbeing and resilience, outreach roles for supporting recruitment into radiography, clarification and support of the roles of research, consultant and clinical academic radiographers as an alternative to purely clinical roles, training for return-to-practice initiatives, to name just a few.

Conclusion

The challenges from Covid-19 and abovementioned proposed solutions are not dissimilar to those of other healthcare professionals, as previous work suggests^{15,16}. One should not underestimate the burnout of healthcare staff, who has been working under these challenging conditions for 2.5 long years. One also should also not overestimate the resilience of healthcare professionals, who are, after all, humans; the Radiography profession is no exception to this. It is imperative that these proposed solutions derived from lessons learned from the pandemic are actioned as quickly as possible, considering local contexts, needs and preferences to ensure the sustainability of high quality clinical, educational and research practice in Radiography, despite the recent challenges brought over by the pandemic. There is a vicious circle which must be broken, to ensure we can continue to live, provide healthcare and education and evidence-based practice in the “new normal” that Covid-19 has brought upon us.

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References:

1. Mockaitis AI, Butler CL, Ojo A. COVID-19 pandemic disruptions to working lives: A multilevel examination of impacts across career stages. *J Vocat Behav.* 2022 Aug 19;103768. doi: 10.1016/j.jvb.2022.103768. Epub ahead of print. PMID: 35999896; PMCID: PMC9388277.
2. Knapp KM, Venner S, McNulty JP, Rainford LA. The challenges, coping mechanisms, and recovery from the initial waves of the COVID-19 pandemic among academic radiographers. *Radiography (Lond).* 2022 Jul 15;S1078-8174(22)00097-9. doi: 10.1016/j.radi.2022.07.003. Epub ahead of print. PMID: 35927184; PMCID: PMC9283605.
3. Lawal O, Omiyi D, York H, Akudjedu TN. Towards describing the global impact of the COVID-19 pandemic on clinical radiography education: A systematic review. *J Med Imaging Radiat Sci.* 2022 Sep;53(3):487-497. doi: 10.1016/j.jmir.2022.05.009. Epub 2022 May 30. PMID: 35732562; PMCID: PMC9149048.
4. Stogiannos N, Fotopoulos D, Woznitza N, Malamateniou C. COVID-19 in the radiology department: What radiographers need to know. *Radiography (Lond).* 2020 Aug;26(3):254-263. doi: 10.1016/j.radi.2020.05.012. Epub 2020 Jun 4. PMID: 32532596; PMCID: PMC7269964.
5. Courtier N, Brown P, Mundy L, Pope E, Chivers E, Williamson K. Expectations of therapeutic radiography students in Wales about transitioning to practice during the Covid-19 pandemic as registrants on the HCPC temporary register. *Radiography (Lond).* 2021 May;27(2):316-321. doi: 10.1016/j.radi.2020.09.001. Epub 2020 Sep 7. PMID: 32943355; PMCID: PMC7476453.
6. Skelton E, Harrison G, Rutherford M, Ayers S, Malamateniou C. UK obstetric sonographers' experiences of the COVID-19 pandemic: Burnout, role satisfaction and impact on clinical practice. *Ultrasound.* May 2022. doi:[10.1177/1742271X221091716](https://doi.org/10.1177/1742271X221091716)
7. Knapp KM, Venner S, McNulty JP, Rainford LA. The risk of burnout in academic radiographers during the COVID-19 pandemic. *Radiography (Lond).* 2022 Jul 1;28(4):1010-1015. doi: 10.1016/j.radi.2022.06.016. Epub ahead of print. PMID: 35926446; PMCID: PMC9247227.

8. O'Donoghue K, Malamateniou C, Walton L, England A, Moore N, McEntee MF. The gendered impact of the COVID-19 pandemic on academics working in medical imaging and radiation therapy. *Radiography (Lond)*. 2022 Jul 18;S1078-8174(22)00095-5. doi: 10.1016/j.radi.2022.07.001. Epub ahead of print. PMID: 35981944; PMCID: PMC9288971.
9. Murphy M, Moore N, Leamy B, England A, O'Connor OJ, McEntee MF. An evaluation of the impact of the Coronavirus (COVID 19) pandemic on interventional radiographers' wellbeing. *J Med Imaging Radiat Sci*. 2022 Sep;53(3):384-395. doi: 10.1016/j.jmir.2022.05.006. Epub 2022 May 18. PMID: 35660274; PMCID: PMC9114273.
10. Akudjedu TN, Mishio NA, Elshami W, Culp MP, Lawal O, Botwe BO, Wuni AR, Julka-Anderson N, Shanahan M, Totman JJ, Franklin JM. The global impact of the COVID-19 pandemic on clinical radiography practice: A systematic literature review and recommendations for future services planning. *Radiography (Lond)*. 2021 Nov;27(4):1219-1226. doi: 10.1016/j.radi.2021.07.004. Epub 2021 Jul 12. PMID: 34303601; PMCID: PMC8272968.
11. Riedel PL, Kreh A, Kulcar V, Lieber A, Juen B. A Scoping Review of Moral Stressors, Moral Distress and Moral Injury in Healthcare Workers during COVID-19. *Int J Environ Res Public Health*. 2022 Feb 1;19(3):1666. doi: 10.3390/ijerph19031666. PMID: 35162689; PMCID: PMC8835282.
12. Nelson KE, Hanson GC, Boyce D, Ley CD, Swavely D, Reina M, Rushton CH. Organizational Impact on Healthcare Workers' Moral Injury During COVID-19: A Mixed-Methods Analysis. *J Nurs Adm*. 2022 Jan 1;52(1):57-66. doi: 10.1097/NNA.0000000000001103. PMID: 34910709; PMCID: PMC9199451.
13. Stafford JL, Leon-Castelao E, Klein Ikkink AJ, Qvindelands SA, Garcia-Font M, Szyld D, Diaz-Navarro C. Clinical debriefing during the COVID-19 pandemic: hurdles and opportunities for healthcare teams. *Adv Simul (Lond)*. 2021 Sep 15;6(1):32. doi: 10.1186/s41077-021-00182-0. PMID: 34526150; PMCID: PMC8441031.
14. Saghafian S, Song LD, Raja AS. Towards a more efficient healthcare system: Opportunities and challenges caused by hospital closures amid the COVID-19 pandemic. *Health Care*

Manag Sci. 2022 Jun;25(2):187-190. doi: 10.1007/s10729-022-09591-7. Epub 2022 Mar 16. PMID: 35292872; PMCID: PMC8923823.

15. Brook, J., Aitken, L.M., MacLaren, J.-A. and Salmon, D. (2021). An intervention to decrease burnout and increase retention of early career nurses: a mixed methods study of acceptability and feasibility. *BMC Nursing*, 20(1). doi:10.1186/s12912-020-00524-9.
16. Murray E, Kaufman KR, Williams R. Let us do better: learning lessons for recovery of healthcare professionals during and after COVID-19. *BJPsych Open*. 2021 Aug 19;7(5):e151. doi: 10.1192/bjo.2021.981. PMID: 34457351; PMCID: PMC8376907.

Figure legends

Figure 1 The programme outlining the lectures of the Covid-19 recovery event, at City, University of London.

Figure 2 The impact of Covid-19 on radiography practice and the way forward by artist in residence, Sarah Smith.