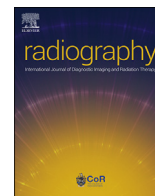




Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Guest editorial

The legacy of COVID-19 for radiography practice, education, and research: How to use lessons learned to navigate the “new normal”?



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 for.^{3–6} 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

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) of 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 (Fig. 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 Dr Judy Brook, Associate Dean for partnerships 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. Fig. 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 innovative use of simulation for different aspects of learning and to allow

Programme		
09:00–09:30	Registration and breakfast	Atrium
09:30–12:30	Session 1: The impact of Covid-19 on radiography professionals Chair: Dr Julie Attenborough, City, University of London Dr Rachel Harris, Society and College of Radiographers	B200
09:30–09:50	Welcome and opening remarks Dr Julie Attenborough, City, University of London Mr Richard Thorne, City, University of London Dr Christina Malamateniou, City, University of London	B200
09:50–10:05	The impact of Covid-19 on the mental and physical wellbeing of radiographers worldwide: A systematic review Dr Lucy Walton, City, University of London	B200
10:05–10:20	Exploring diagnostic radiographers' experiences through the Covid-19 pandemic Dr Ruth Strudwick, University of Suffolk	B200
10:20–10:35	The impact of Covid-19 on UK obstetric sonographers Ms Emily Skelton, City, University of London	B200
10:35–10:50	The impact of Covid-19 on radiography academics and researchers Prof Mark McEntee, University College Cork	B200
10:50–11:05	Experiences of newly qualified therapeutic radiographers who transitioned to work during the Covid-19 pandemic Dr Nick Courtier, Cardiff University	B200
11:05–11:30	Tea and coffee break	Atrium
11:30–11:45	Exploring ethnic minority communities AHP career choices: a case for radiography (HEE funded project) Ms Meera Sharma, City, University of London	B200
11:45–12:15	Caring for those who care for others Dr Christina Triantafyllou Ms Isabel Nieto Alvarez Siemens Healthineers	B200
12:15–12:30	Closing of the session Dr Julie Attenborough, City, University of London/Dr Christina Malamateniou, City, University of London	B200
12:30–13:15	Lunch and Networking	Atrium
13:15–15:45	Session 2: Repair and recovery after Covid-19, maximising support and retention of our radiography practitioners: finding solutions Chair Judy Brook, City, University of London, Mrs Sandie Mathers, Chair of College Board of Trustees, SCoR	B200
13:15–13:30	Introduction to the session Dr Rachel Harris, SCoR Staffing and resourcing in radiography: facts	B200
13:30–14:30	Facilitated workshops 1 and 2 Breakout Room 1: Academics and Researchers (3 facilitators) Breakout Room 2: Clinical Practitioners (3 facilitators) Current challenges and Priorities for recovery Recruitment, attrition and retention in radiography workforce Training needs for recovery	B103 and BG02
14:30–15:00	Tea and coffee break	Atrium
15:00–15:30	Reconvening and summaries for the way forward Presentations from facilitators of workshops	B200
15:30–15:45	Closing Remarks Judy Brook, City, University of London Dr Christina Malamateniou, City, University of London	B200

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

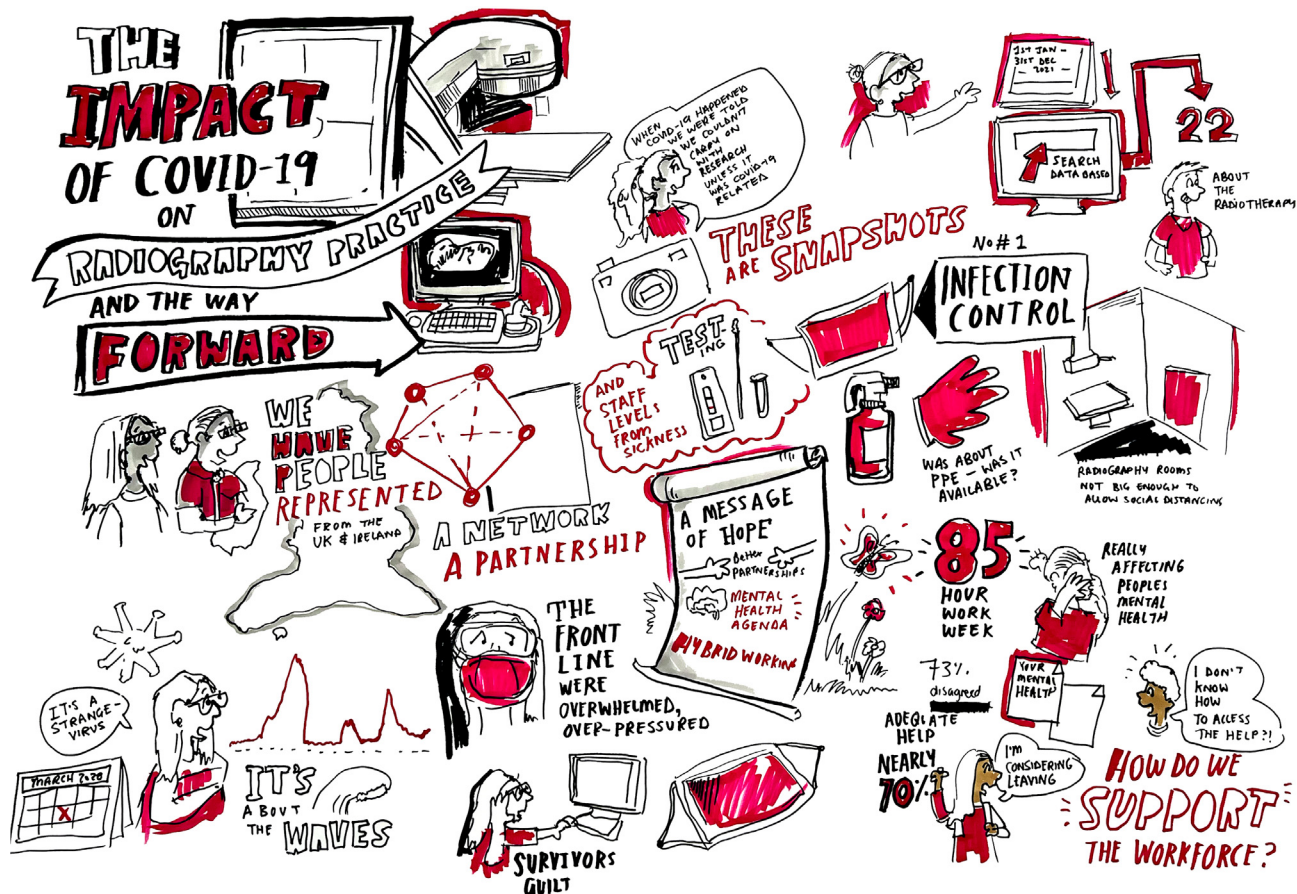


Figure 2. The impact of COVID-19 on radiography practice and the way forward by artist in residence, Sarah Smith.

better transition of students from theory to clinical placements, promoting a research and evidence based culture in clinical practice to enable better collaboration with higher education institutions (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 adjunct 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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