Impact of Covid-19 on medical education

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The impact of Covid-19 on medical education has been catastrophic. Health Education England (HEE) has worked with key partners to expedite the registration of 2213 final year medical students to be become new junior doctors and the join the NHS frontline early. Doctors who have retired in the last 3 years are being asked to consider returning back to work. Similar adjustments were done across the pond and in Europe. The GMC National training survey highlights the disruption caused by Covid-19 and it's adverse effect on morale of our trainees[1,2].

Historical perspective

It is well recognised that at times of major conflicts, the quality of training suffers tremendously. We understand that during the Blitz, students and newly qualified in-turns were drafted to areas of need. Additionally during World War II, certain American medical schools abbreviated their post graduate degree programme from 4 years to 3 years to address doctor shortages. Despite this bleak outlook, radical reforms in medical education occurred after the [2] World Wars leading to significant improvements in the curriculum and in-take along with significant increase in women admissions to medical school.

Clinical teaching

Almost all medical schools swiftly moved on to remote learning and majority of university staff worked from home. All across the world, final year medical students were drafted into the medical workforce as 'early graduates' and have certainly assisted in the pandemic response. There is evidence to suggest that they were well supported – they were deployed on 'non-Covid' areas and had named mentors. Junior doctor morale was already low during the pre Covid era due to loss of firm structure, frequent changes in specialities and exceedingly busy shifts. This has now been worsened with Covid 19 causing rota disruptions, working in unfamiliar surroundings and concern over personal protective equipment. Nearly half of juniors have reported anxiety, depression and burnout. In addition to changes in the clinical landscape, there have been disruptions in specialist examinations and speciality recruitment processes. Despite swift response from all Royal Colleges, GMC, HEE, BMA and other allied organisations; juniors have reported stress and frustration due to uncertainty[3]. Staff absences due to illness or self-isolation can be as high as 20%; the negative aspects of quarantine should not be underestimated[4]. Healthcare professionals had a high incidence of stress and anxiety disorders; with females and nurses having the highest incidence[5].

Although the current pandemic has thrown up major challenges to the National Health Service such as significant reduction in routine work and elective surgery along with all out-patient clinics being switched to tele-clinics trainers have demonstrated a willingness to adapt and designed innovative learning opportunities in place of traditional teaching methods to mitigate these unprecedented turn of events.

The swift response towards digital technology has successfully converted all out-patient clinics into telephone clinics – innovative use of speaker telephones and other innovative gadgets such as split ear phone pieces have managed to provide worthwhile training to medical students and junior doctors.

E-learning is not a normal concept and there have been multiple platforms providing different learning materials for healthcare professionals. These include www.e-lfh.org.uk and e-brain.net[6,7]. However Covid-19 has exploded a rise of innovative trainers including peer to peer trainers who have created new learning materials and are holding video conferences for learning worldwide utilising software such as zoom. It has been demonstrated that video conferences are non-inferior to face to face education. There are additional advantages such as increased breadth of teaching resources available along with a reduction in the time and cost of travelling for teaching.

A lot of junior doctors were drafted towards managing acutely unwell patients with Covid-19 and this was taking them outside their comfort zone. However, basic management of an acutely unwell patient will always be helpful whatever your speciality. There has been an explosion of medical literature surrounding Covid-19. All doctors whatever their speciality have closely followed this evidence and have sifted through to assess the strengths and weaknesses of various studies available. This has provided us with helpful tools to discern the quality of evidence "which in the long run will inform our judgement to effectively management patients in our own sub-speciality too".

The development of peer support networks may lead to reduced doctor burnout and improved patient care[8]. Additionally the key learning has been in softer skills such as leadership, innovation to adapt and team building. As clinicians have had to change their pattern of working on a daily basis there has been a great opportunity to observe excellent leadership skills at close quarters.

Leadership focussed on resilience, lucid communication

to provide timely information and empowerment; and providing a supportive culture to enhance a continuum of staff sustenance will be required in the days' ahead[9].

There has been concern regarding craft specialities where online resources cannot replace "hands-on skills". However, several simulation labs have sprung up in various regions to assist with this deficiency. Remote learning should promote sharing of resources beyond the usual confines and programs should invest in virtual platforms available to all trainees[10].

Additionally Royal Colleges and Health Education England have issued guidelines to state that progress of junior doctors would not be affected just because of Covid-19. Although there is some uncertainty whether training will need to be extended a lot of background work is ongoing to mitigate these challenges. Schwartz ward rounds have been invaluable in improving team working and building resilience. In our own hospital, we resorted to 'reverse Schwartz rounds' where a junior would lead the round as a Consultant and roles were reversed to build morale.

Key Messages-

- Globally, major disruptions have been reported in medical education due to Covid 19 pandemic
- In response reorganisation of healthcare services has taken place
- Adverse psychological impact on trainees has been catastrophic
- Surgical and craft specialities have been particularly affected
- E learning platforms and Simulation centres have come to rescue
- Silver lining of the pandemic has been a renewed 'sense of camaraderie' amongst healthcare teams.
- Future directions-
- How will long Covid 19 affect a proportion of trainees?
- Will the key learnings from Covid 19 ultimately produce a more resilient healthcare workforce?
- Whether Covid 19 has been a springboard to transform medical education delivery?

Conclusion

The Covid 19 pandemic has caused major disruption in the field of medical education. Although the negative impact is likely to last for a long time; there has been a swift response to mitigate some of the challenges. There needs to be a new balance between training needs and service provision to prevent uncertainty and frustration amongst trainees. It remains to be seen whether this pandemic will ultimately lead to transformational change in medical education. One of the silver lining has been the 'sense of camaraderie' and 'flattening of hierarchy' as all seniors, juniors and allied healthcare professionals have joined forces to continue to care for our patients. We should be looking to create competent doctors who are resilient to meet the demands of future similar disruptions.

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