Dr Nebil Achour, Associate Professor in Disaster Mitigation, Anglia Ruskin University

Championing resilience in healthcare

Nebil started his career as a civil engineer, eventually specialising in earthquake engineering and evaluating hospital buildings, lifeline systems and equipment stability. Nebil aims to apply what he has learned about the complexity of healthcare service provision to improve disaster preparedness within hospitals.

The challenge

There is a global need for more resilient healthcare services as demonstrated recently by Covid-19. During the pandemic in the UK, <u>the number of patients</u> <u>waiting over 12 months reached 236 times the numbers in August 2019</u> demonstrating the ineffective preparedness measures. The UN suggests that <u>a</u> <u>disaster-prepared entity costs 15 times less than an unprepared one.</u>

Healthcare resilience is often considered from independent viewpoints that can lead to fragmented and less comprehensive solutions. With so many moving parts, any disruption can cause a backlog of delays and issues to other patient services. The complexity of hospital systems and procedures along with a lack of communication between professionals working in siloes often exacerbates healthcare vulnerability. Failure to collaborate effectively can, therefore, hinder the continuity of healthcare services.

The ambition

Nebil's ambition is to bridge gaps between people with different roles and backgrounds facing different pressures within healthcare. His aim is to build a network that encourages different segments of the healthcare industry to talk to each other about their experiences and draw a roadmap for future resilience.

Nebil hopes to achieve this by organising a series of webinars to shed light on the frontline and 'hidden' service provision heroes that form the backbone of healthcare, such as doctors, nurses and those who supply oxygen and medicine and enable services for patients behind the scenes.

Data collected from webinar discussions will inform a workshop hosted by Istanbul Medeniyet University Goztepe Prof. Dr. Suleyman Yalcin City Hospital. Equipped with anti-disaster systems, the Hospital has championed changing infrastructure to not only manage disasters but prepare for future disasters as well. A final webinar will discuss solutions and potential future pilot projects.

Relevant UN Sustainable Development Goals (SDGs)

- Good health and wellbeing (SDG 3)
- Industry, innovation, and infrastructure (SDG 9)
- Sustainable cities and communities (SDG 11)

Involvement with the Royal Academy of Engineering

Nebil first became involved with the Academy after attending a Frontiers Symposium in 2018 on *Inclusive prosperity and wellbeing in the context of mass displacement*.

On the need to combat fragmentation within healthcare research, he says, "Being multidisciplinary in our approach is a key issue. We all love working within our own zone of comfort but that is not how life works. Working in a multidisciplinary environment is something that we need to nurture and push for. We have so much technology around us - we always need to think about the future and how to push the boundaries."

And to prospective applicants, Dr Nebil says, "Don't apply for the sake of just applying – apply to actually make some change and to get the feeling that you did something for humanity."