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Implementing an In-Person Simulation-Based Training Workshop for Critical Care
Workers in Pakistan After the First-Wave of COVID-19

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Background:

The COVID-19 surge in Pakistan revealed apparent deficits in the availability of qualified critical care staff. This led to an increased investment in deploying a multitude of educational interventions to train various categories of healthcare workers in the critical care setting. According to the Inclusive Index of 2020, only 35% of Pakistan's population has internet access. Therefore, Aga Khan University developed a novel hands-on workshop to expand the cadre of critical care workers.

Objective/Aim:

To expeditiously train healthcare professionals in Pakistan in the management of COVID-19 patients through a combination of didactic lectures and simulation-based workshops.

Methods:

76 participants affiliated with 30 hospitals across Pakistan underwent two-day intensive in-person courses consisting of case-based lectures and twelve hands-on sessions. This workshop focused on the basic principles of diagnosing, managing, and monitoring COVID-19 patients. All participants completed pre- and post-tests consisting of 30 multiple choice questions. Evaluation forms were also disseminated to all the participants to assess the workshop in terms of course content, duration, and methodology.

Results:

The course participants were predominantly males (80.0%), with medical officers (51.9%), and post-graduate residents (15.2%) representing the largest groups. Majority (21.1%) had a background in internal medicine. Most (36%) had >5 years of experience. While the mean pre-test score was 11.25 ± 4.09 (37.50%), the post-test score showed a significant improvement with a mean of 15.41 ± 5.04 (51.34%) ($p \leq 0.0005$). All participants completed the feedback form, where 91% felt that they will be able to use the skill-set and knowledge acquired during the workshop, 96% expressed that they would recommend this workshop to their colleagues, and 84% indicated that the mode of teaching was conducive to learning.

Conclusion:

Our results indicate that there is a dearth of baseline knowledge in critical care, highlighting the need for dedicated educational interventions in this field across Pakistan. The significant improvement in knowledge proves that such a model can be used as a prototype to implement future investments into training critical care workers. This study is currently being used to develop a similar workshop aimed at critical care nurses and paramedical staff.