Specialised crew resource management programme for non–locally trained healthcare professionals: expediting healthcare cultural adaptation

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To the Editor—Healthcare delivery is one of the most complex sociotechnical processes with healthcare practitioners working under adverse and stressful conditions despite being adequately trained for medical-technical proficiency. Human factors contribute to 70% to 80% of medical incidents.[1] The focus has shifted gradually from individual competence to teamwork as a prerequisite to improve patient safety.[1,2]

Teamwork skills training, crew resource management (CRM), has become an essential and integral part of a corporate-wide teamwork training programme in the Hong Kong Hospital Authority.[1] Applying CRM can transform a team of highly specialised experts into an expert team for safe patient care, good working climate and team member satisfaction.[1]

In April 2023, the Hospital Authority launched its first Greater Bay Area (GBA) Healthcare Talents Visiting Programme.[1] In September 2023, a Multi-Disciplinary Simulation and Skills Centre at Queen Elizabeth Hospital and the Central Nursing Division co-organised a 4-hour classroom-based interactive group sharing programme for 14 non–locally trained professionals in the Kowloon Central Cluster (Table).[3,4] The elements covered in the Cluster's CRM training include assertiveness, communication, leadership and followership (interpersonal skills), and situational awareness (cognitive skills).

This pilot programme, titled 'Sharing Activity for Non–Locally Trained Healthcare Professionals' (深化醫療團隊協作), aimed to broaden participants' awareness of the Hospital Authority organisational structure and training centre development and share elements of standard Kowloon Central Cluster CRM training. The objective was improved better clinical teamwork and adaptation among interdisciplinary professionals from diverse training backgrounds.[1,5]

We conducted an evaluation before and after this pilot programme. All items on pre- and post-questionnaires used a 5-point Likert scale (1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly agree). Our evaluation identified a remarkable increase in understanding of the local healthcare service (score range of the results of items in this category=3.79-4.90; overall increase in knowledge from pre-test to post-test in this category=23%) and elements of CRM (score range of the results of items in this category=4.19-5; overall increase in knowledge from pre-test to post-test in this category=20%). All participants (n=14, 100%) found acquisition of CRM could improve patient safety and 93% (n=13) were confident that they could apply the principles in clinical practice. From the perspective of personal interests and clinical benefits, participants placed a high value on all content but especially 'Concept of CRM' (mean ± standard deviation=4.93 ± 0.27) and 'Simulation technology applied in training and research' (mean=5). A Self-Evaluated Behaviour Assessment (SEBA-28) addressed the overall impact of the programme on participants' attitude towards CRM-related behaviours (+10%), in particular 'Situational awareness' (+14%).[5] When identifying challenges in healthcare cultural adaptation, 93% of participants (n=13) were optimistic that implementing the concept of CRM would mitigate challenges regarding communication, interdisciplinary team cooperation, and cultural diversity.

The evaluation demonstrates the potential and value of a CRM programme for non–locally trained healthcare professionals. Various Hospital Authority training centres could play an important role to facilitate integration and interaction of team members from diverse training backgrounds through CRM training. Further study should be planned to fill the knowledge and research gaps and build resilient expert teams in the Hospital Authority.

Author contributions

All authors contributed to the concept or design of the letter, acquisition of data, and analysis or interpretation of data. EHK So and VKL Cheung drafted the letter. All authors critically revised the letter for important intellectual content. All authors had full access to the data, contributed to the study, approved the final version for publication, and take responsibility for its accuracy and integrity.

Conflicts of interest

All authors have disclosed no conflicts of interest.

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TABLE. Curriculum of crew resource management (CRM) sharing programme for non–locally trained healthcare professionals (4 doctors, 10 nurses) from the Greater Bay Area

Components	Key contents/knowledge/skills
Hospital Authority service overview	■ Healthcare system in Hospital Authority ■ Development of healthcare training centre ■ Innovation in simulation training and research
Human factors and teamwork	■ Introduction of CRM ■ Normalisation of deviance ■ Classic tragedy: United Airlines Flight 173
Assertiveness	■ Video case demonstration: Passive < Aggressive < Assertive
Communication	■ SBAR: Situation, Background, Assessment, Recommendation ■ Closed loop communication (read-back to confirm information)
Leadership and followership	■ Team briefing ■ Team debriefing
Situational awareness	■ Possible factors for losing situational awareness/red flags ■ To build → To maintain → To detect loss
Other activities	■ Briefing with ground rules + psychological safety assurance ■ Interactive games: Helium stick/chair game/find the differences ■ Video case sharing, voting, small group/open discussion
Pre- and post- activity questionnaires	■ Contextual knowledge of local public healthcare service ■ Self-evaluated Behaviour Assessment (for CRM elements) ■ Feedback on sharing activity of CRM: safety and applicability ■ Voting for healthcare cultural adaptation process
Practical tips on curriculum modification for non–locally trained healthcare professionals from the Greater Bay Area	■ Translate all materials (PowerPoint slides/questionnaires) from English to Chinese with attention to cultural differences ■ Utilise full spelling of terminologies in English and Chinese supplemented with abbreviations in English ■ Fine-tune medical scenarios relevant to clinical practice ■ Enhance peer interactivity by cutting down proportion of theoretical content but adding games/reflective questions ■ Receive upper management buy-in: curriculum of the captioned programme endorsed by the Cluster Management, Central Nursing Division (Kowloon Central Cluster), and Multi-Disciplinary Simulation and Skills Centre, Queen Elizabeth Hospital in advance

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Eric HK So[1,2] *, MB, BS, FHKAM (Anaesthesiology), **Victor KL Cheung**[1], MSc (OP), RegPsychol (HKPS), **Avis SH Leung**[1], MSSc, RN, **SS So**[1], MSc, BBA, **Jeff LK Hung**[1], MSc, BSSc, **Terry ML Yau**[3], MBA, SNM, **NH Chia**[1,4], MB, BS, FRCSEd (Gen), **George WY Ng**[1,5], MB, BS, FCICM

[1] *Multi-Disciplinary Simulation and Skills Centre, Queen Elizabeth Hospital, Hong Kong SAR, China*
[2] *Department of Anaesthesiology and Operating Theatre Services, Queen Elizabeth Hospital, Hong Kong SAR, China*
[3] *Central Nursing Division, Kowloon Central Cluster, Hospital Authority, Hong Kong SAR, China*
[4] *Department of Surgery, Queen Elizabeth Hospital, Hong Kong SAR, China*
[5] *Intensive Care Unit, Queen Elizabeth Hospital, Hong Kong SAR, China*

* Corresponding author: sohke@ha.org.hk

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