

Abstract:

Background: Harmonization in hand hygiene training for infection prevention and control (IPC) professionals is lacking. We describe a standardized approach to training, using a “Train-the-Trainers” (TTT) concept for IPC professionals and assess its impact on hand hygiene knowledge in six countries.

Methods: We developed a three-day simulation-based TTT course based on the World Health Organization (WHO) Multimodal Hand Hygiene Improvement Strategy. To evaluate its impact, we have performed a pre-and post-course knowledge questionnaire. The Wilcoxon signed-rank test was used to compare the results before and after training.

Results: Between June 2016 and January 2018 we conducted seven TTT courses in six countries: Iran, Malaysia, Mexico, South Africa, Spain and Thailand. A total of 305 IPC professionals completed the programme. Participants included nurses (n = 196; 64.2%), physicians (n = 53; 17.3%) and other health professionals (n = 56; 18.3%). In total, participants from more than 20 countries were trained. A significant ($p < 0.05$) improvement in knowledge between the pre- and post-TTT training phases was observed in all countries. Puebla (Mexico) had the highest improvement (22.3%; $p < 0.001$), followed by Malaysia (21.2%; $p < 0.001$), Jalisco (Mexico; 20.2%; $p < 0.001$), Thailand (18.8%; $p < 0.001$), South Africa (18.3%; $p < 0.001$), Iran (17.5%; $p < 0.001$) and Spain (9.7%; $p = 0.047$). Spain had the highest overall test scores, while Thailand had the lowest pre- and post-scores. Positive aspects reported included: unique learning environment, sharing experiences, hands-on practices on a secure environment and networking among IPC professionals. Sustainability was assessed through follow-up evaluations conducted in three original TTT course sites in Mexico (Jalisco and Puebla) and in Spain: improvement was sustained in the last follow-up phase when assessed 5 months, 1 year and 2 years after the first TTT course, respectively.

Conclusions: The TTT in hand hygiene model proved to be effective in enhancing participant’s knowledge, sharing experiences and networking. IPC professionals can use this reference training method worldwide to further disseminate knowledge to other health care workers.

Reference:

Tartari, E., Fankhauser, C., Masson-Roy, S., Márquez-Villarreal, H., Fernández Moreno, I., Rodríguez Navas, M.L., Sarabia, O., Bellísimo-Rodríguez, F., Hernández-de Mezerville, M., Lee, Y.F., Aelami, M.H., Mehtar, S., Agostinho, A., Camilleri, L., Allegranzi, B., Pires, D. and Pittet, D. (2019) Train-the-Trainers in hand hygiene: a standardized approach to guide

education in infection prevention and control. Antimicrobial Resistance & Infection Control. December 30th. doi: 10.1186/s13756-019-0666-4. eCollection 2019.

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