Improving Clinical Safety through Innovative Staff Empowerment Program for Handling Emergency Conditions in Hydrotherapy Pool of Physiotherapy Department, Pok Oi Hospital

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Introduction
Staff empowerment is important to deliver quality and safe physiotherapy service to patients. Hydrotherapy pool in Pok Oi Hospital is a newly designed stainless steel tank which is different from traditional sink-in pool. It is built on floor and ceiling hoist is needed for rescue victims from pool to land. The handling of emergency conditions involves teamwork from professional and supporting staff in different departments. Staff training on rescue logistic from pool to land and using Basic Cardiac Life Support (BCLS) is needed for handling emergency conditions in hydrotherapy pool. Therefore, a new innovative staff empowerment program aimed at improving staff confidence and ability in handling emergency condition in hydrotherapy pool was implemented.

Objectives
To review the innovative staff empowerment program in handling emergency conditions in hydrotherapy pool

Methodology
All physiotherapists would be invited to join the staff empowerment program. This program took place in February to March 2017. New staff empowerment program included: 1. Lectures for reviewing BCLS techniques and workflow of rescue 2. Practical sessions of BCLS in small groups 3. Practical sessions of rescue techniques in hydrotherapy pool 4. Cross departmental drill on emergency condition in hydrotherapy pool. Questionaire would be distributed to physiotherapists to review their confidence on logistic of handling cases with cardiac arrest, application of basic cardiovascular lift support (BCLS) and using of equipment before and after program. This was evaluated by scoring 0 (not confident) to 10 (very confident). The usefulness of program was reviewed by scoring 0 (not useful) to 10 (very useful). The time of the drill for rescue of victims from pool to Department of Accident and Emergency was recorded for comparison from 2016.
Result
22 physiotherapists have joined the program. For confidence on handling cases with cardiac arrest, application of basic cardiovascular lift support and using equipment, they have scored 5.7+/-2.1, 6+/-2.1 and 5.7+/-2.3 respectively in average before program. After program, they scored 8.5+/-0.9, 8.6+/-0.9 and 8.6+/-0.9 in average respectively. All aspects have showed an increase by 33%, 30% and 33% respectively. The staff has scored the usefulness of the overall program as 8.8 out of 10. The cross departmental drill on emergency condition in hydrotherapy pool was recorded from 8 minutes 27 seconds in 2016 to 7 minutes 42 seconds in 2017 for rescue of victims from hydrotherapy pool to Department of Accident and Emergency. Positive results have been seen in subjective findings by questionnaire and objective findings by finishing time of drill. Staff showed significant increase in confidence in handling cases with cardiac arrest. They can gain more experience on application of BCLS in suitable conditions. They also reported more confidence in using the rescue equipment. All staff thought this program useful and being empowered. Conclusion: Good clinical practice relied on competent staff. Effective training program can improved the clinical safety.