

**Title Of Study** : Music as a mnemonic aid in basic life support (BLS) training on improving the skill mastery of trainee: A pilot study

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**Abstract:**

Background: Quality of chest compression in resuscitation such as compression rate and depth is associated with the return of spontaneous circulation (ROSC) in victims with cardiac arrest. However, the skills of the providers are often suboptimal even after training. Thus, there is an emerging need in the development of an evidence-based and high quality CPR training programme to enhance the skill mastery of the learners. Nevertheless, prompt devices are incorporated into training to improve the mastery of resuscitation skills in the last decade.

Aim of the Study: It was aimed to estimate the effects of compression quality by using song as the prompt device in BLS training among paediatric nurses.

Methodology: This was a prospective randomized study. Paediatric nurses from a local hospital were recruited and allocated randomly into control and song groups. The BLS training consisted of lecture and practice on an infant manikin (Resusci baby QCPR, Laerdal). The song “Stayin’ Alive” by Bee Gees was played during training and practice in the song group. The compression skills from 2-person infant CPR were assessed at three time points: before (T0) and after training (T1), and one week after (T2). Data of the compression quality were collected and analyzed using IBM SPSS 23 (IBM, NY). The generalized estimating equation (GEE) model was used to compare the repeated measures outcomes between two groups.

Results: Forty paediatric nurses were recruited and three nurses did not turn up (control n=20; song n= 17). The two groups were equivalent in gender, time since previous BLS training, and CPR experience. However, the nurses in the control group were older in age (p=0.025) and had longer work experience (p=0.03). Both groups were able to perform chest compressions with mean rate according to 2010 AHA guidelines. When the results were analyzed according to the 2015 guidelines, 94% of nurses in the song group performed compressions at correct rate (100-120cpm) at one week after as compared to 75% of nurses in the control group. Yet, this study failed to identify any significant difference in the compression qualities between the two groups.

Conclusion: Using song as a prompt device in BLS training was feasible. It could serve as a mnemonic aid to guide the nurses for chest compressions.