Early Response to Cardiac Arrest: A General Population Study Using Online Questionnaire

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Introduction: Basic life support performed by general population improves outcomes in cardiorespiratory collapse, yet less than 1% of the general population can perform it effectively. Strengthening the community response to cardiac arrest by training and empowering more bystanders to perform CPR and by increasing the use of Automated External Defibrillators (AEDs) at least doubles the chances of survival and could save thousands of lives each year. Once cardiac arrest has occurred, early recognition is critical to enable prompt initiation of bystander CPR. The immediate initiation of bystander CPR can double or quadruple survival from out-of-hospital cardiac arrest. Despite this compelling evidence, only 40% of victims receive bystander CPR. This study aims to gain information about general population's early recognition knowledge.

Methods: Online Questionnaire was created using Google Sheet Form, link: https://goo.gl/eQZ0N. This link was broadcasted using LINE, WhatsApp, and BBM application as media. Simple randomized sampling was used. There was a “only for a non-medic society” note inside the questionnaire, for limiting sample bias. There were 303 responders (160 male, and 143 female), age >17 y.o. Majority of responder’s last educational level were high school (58%) and undergraduate (38%), others (4%). The questions inside the questionnaire tend to detect the early response of responders as bystander using 4 criterions: 1. Responder's reaction, 2. Location for checking pulse, 3. Chest compression method, 4. Ventilation method

Result: From the questionnaire, we found that 192 (63.6%) of responders tend to call ambulance for the first reaction, then 284 (93.7%) of responders will try to check pulse on the neck. 233 (77.4%) of responders know that chest compression was done on mid-chest, 246 (81.5%) of responders know that CPR should be done repeatedly with specific rhythm. Only 150 (49.5%) of responders want to give mouth-to-mouth ventilation.

Conclusion: From the result, we conclude that our responders have a good knowledge about how they react as a bystander while encountering unconscious person and overall result was satisfying. A continuing seminary using mass media and workshop about Basic Life Support is encouraged. We plan to expand our study to reach community nationwide.