



Short Communication

A Visual Guide Saves Lives! Sign Language Used in Training Deaf Persons Doing CPR

Britta Berglund^{1*}, Yvonne Haglöf¹, Eva Lorenz¹, Robin Slätt², Lotten Karlung Slätt², Sylvia Sundevall²

¹Swedish Heart and Lung Association, Botkyrka Salem, Bryggarvägen 9, SE-14730 Tumba, Sweden

²Elsa Brändströms gata 60A, 12952 Hägersten, Sweden

*Corresponding author: Britta Berglund, Solskensvägen 19, SE-14646 Tullinge, Sweden

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Background

When a person in the street suffers from an acute cardiac arrest, there is a need for CPR. If the first person that comes by is deaf or is hearing with difficulties, it is a challenging situation [1]. WHO has estimated 360 million individuals in the world with disabling hearing loss out of which 91% are adults. The traditional view of deafness is based on a pathological perspective rather than cultural [2]. This often misunderstood community of patients have their own unique sign language, values and experiences. Untrained deaf persons showed skills to perform CPR [3]. In the present case, CPR can be performed but the deaf person can not hear the instructions from the heart starter. The Swedish Heart and Lung Association Botkyrka Salem discussed a project to develop CPR security for people with hearing difficulties. The Association for hearing-impaired and deaf children and their families (FHDBF) was contacted for a corporate project in order to educate their deaf members in CPR.

Method

An application for funding this project was sent to the CPR-council in Sweden, and it was approved. The project started after the pandemic situation. An interpreter using sign language was engaged to take part in the courses to translate the instructions with sign language to the deaf participants. The two first courses were held in September and December 2021 and the following courses were held in spring 2022 as well as the instructor course.

Results

Twenty deaf persons participated. Then eight instructors were trained from that group and they met over 80% of the approved level of CPR, measured with a telephone app connected to the

mannequin. The courses were evaluated with a questionnaire about the participants' memories of the course. It was evident that they remembered exact details about how to clarify if the person did not breathe and had no pulse. Then they could do heart compressions. A focus group with the aim to focus on their personal thoughts about how to learn CPR was implied. The participants were very satisfied to get an opportunity to practice several times on performing CPR in connection with theory. This gives a feeling of satisfaction. They also expressed that a repetition would be appreciated in about a year.

This unique project has been presented with an interactive poster with the same name as this paper at the ECRD conference in Paris organized by EURORDIS in May 2022. It is not common that different organizations work together with the same project, that is unique. An abstract for a poster was also sent to a conference for nurses, organized by swenurse.se in Stockholm, but the conference was canceled due to the pandemic. Several demonstrations with mannequins and heart starters were performed in shopping centers in Stockholm during 2022.

The deaf group continues to develop a video in sets of two pictures, showing CPR and interpretation with sign language. The instructor with sign language makes a pause when the CPR is demonstrated and vice versa. The person that looks at the instructor using sign language can not look at the demonstration of CPR at the same time. This is a quite new invention.

Discussion

More knowledge of how to be helpful with a cardiac arrest when you encounter it in society is important to develop. Persons that have hearing difficulties or are deaf are in a problematic

situation. One problem is that they may have difficulties calling the alarm on the phone. In order to do this, they must be registered at the SOS Alarm institution. Other issues are that they can not hear the heart starters instruction when they have adapted the controls to the patient. They can not hear the instruction since it is aural, not visual. We also found in this project that some words are missing in sign language, for example how to blow air in the patient's mouth when doing resuscitation. Communication skills are important when persons with hearing difficulties are in need of healthcare. Improved access to health information includes specialized resource materials, prevention and targeted intervention strategies. Also healthcare providers must be more effective communicators and use qualified interpreters [4]. The degrees of hearing loss range between slight to mild, moderate, moderately severe, severe or profound. And even if the patient can speak, healthcare professionals can not assume that their communication will be fully understood. In a study, where DVD-based and app-based training of CPR was compared, the DVD-group performed significantly better [5]. Both groups improved compression depth and the DVD-group would be more willing to support a friend with CPR. This supports the results of this project, since our deaf group had several opportunities to work with practical training.

Conclusion

It is evident from this project that deaf individuals can be effective with CPR after training on mannequins and getting instructions with sign language. Those who are examined as instructors for deaf persons can also work as such using sign language. This project can be multiplied in any society.

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