

Entry for the 2024 Auwal Shanono/OCI Foundation Literary Award for Medical Students

Topic:

**Assuming you are hired by the OCI Foundation to oversee it's
Basic Cardio-pulmonary Resuscitation(CPR) and Emergency
Response Strategies project (BACERS), what strategies and
measures would you adopt in order to achieve the stated goals?**

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0.1 Introduction

Sudden cardiac deaths and other life threatening emergencies occur frequently and go unnoticed by bystanders in the event. Sometimes, even doctors and other health professionals are oblivious to an impending cardiac arrest in a patient and worse off, are clueless as to what to do in a setting of cardiac arrest. This is about to change. With the measures that will be employed in this project- The Basic Cardio-pulmonary Resuscitation and Emergency Response Strategies (BACERS) project, basic cardio-pulmonary resuscitation and emergency response skills will be accessible by every group in society, especially those who are often present at the scene of a cardiac event.

Cardiopulmonary resuscitation (CPR) consists of the use of chest compressions and artificial ventilation to maintain circulatory flow and oxygenation during cardiac arrest.

[1]

0.2 Burden of Sudden Cardiac Death

Sudden Cardiac Death (SCD) is defined by the World Health Organization as a sudden unexpected death occurring within one hour of onset of symptoms or within twenty-four hours of having been last seen well.[2]

Hypertension and it's cardiac complications is known as the commonest cause along with other events like drowning, head injuries and drug overdose. These are quite common in our environment.

Globally, it is estimated that more than 7 million lives per year are lost to SCD worldwide, including over 300,000 in the United States. It has also been reported that immediate chest compression is the most important intervention to improve the outcome in SCD.

[3]

In a research done at Ladoke Akintola University of Technology Teaching Hospital, Osogbo, South West Nigeria, sudden death accounted for 4.0% (29/718) of all adult medical mortality, and accounted for 1.0% (29/2821) of all adult medical admissions. Further, 2.1% (15/718) of all deaths was attributable to sudden cardiac death. Only eight (27.6%) of the 29 cases of sudden death reached the hospital alive, and 21 (72.4%) died before arrival.[4]

This shows that SCD has gradually become a public health emergency that needs intervention. Unfortunately, studies have also shown that bystanders are often ill equipped to offer the necessary assistance.

0.3 Goals of the OCI Foundation's BACERS Project [5]

The goal is to reach all Nigerians aged ten years and above across all 36 states, including the Federal Capital Territory (FCT), using the BACERS project and optimizing knowledge levels and basic skills among them for responding to life-threatening emergencies.

The projects aims to equip at least 50% of all targeted Nigerians (10 years and above) with the necessary skills to intervene in a cardiac arrest within two years of the program roll out, with 75% achieving same in 5 years. This with strategies that are sustainable, all encompassing and cost effective.

0.4 Strategies for Implementation

SCD is witnessed by a bystander in 37% of cases.[6] That bystander could be anybody!

Putting into consideration the fact that Nigeria is divided into zones with each having its own peculiarities in terms of language, literacy level and way of living, the project will attempt to employ environment and age group specific methods so as to achieve the goals stated above. However, the strategies generally include:

1. Collaboration with the Nigerian Youth Service Corps (NYSC): there already exists an ongoing program under the foundation tagged Arm Our Youths Health Campaign (ArOY Campaign) [6] in collaboration with the NYSC to create awareness for breast and cervical cancer in camps and secondary schools. Incorporating a short course that teaches basic CPR and emergency response skills would equip a good percentage of the Nigerian youth with those skills. The strength of this strategy lies in the fact that each NYSC camp houses Nigerian youths from all parts of the country. Knowledge given to a Kogi man will be the same with that given to a Sokoto man thus creating a ripple effect when these people return to their indigent states. [5]
2. Collaboration with the ministry of education: The younger population among the targeted Nigerians are in primary and secondary schools across the country. One-off contacts as done in outreaches may not suffice to groom them in CPR and emergency response skills. This project will work with the ministry of education in collaboration with Nigerian Medical Students Association (NiMSA) Chapters in all states of the federation to develop OCI Foundation Emergency Response Clubs (OFERCs). These clubs will run through the academic sessions, teaching pupils and students CPR steps with practical sessions on mannequins suitable to the children. The leadership of NiMSA in various chapters will take care of the

cultural barriers that may be encountered and will also provided a sustainable program by recruiting trained personnel that are resident in those areas.

3. Refresher Courses for Health Personnel: Although CPR is taught at a certain level in medical and nursing schools, students eventually loose the art in the course of intern years and even residency- unless the doctor ventures into clinical residency. These refresher courses, in collaboration with the Chief Medical Directors of various hospitals, will be offered to doctors in training, nurses, health assistants and more, to boost not just their skills but also their portfolio.
4. Incorporation into the CerviBreast Mobile Phone Application: In recent times, the health sector has spread it's tentacles and ventured into the digital world by including various medical applications in software packages of phones in order to enhance medical knowledge amongst non professionals, one of which is the amazing CerviBreast application. Incorporating the BACERS as a software package into an already rolling program is cost effective and will reach a wide range of audience- women in colleges and secondary schools, with the skills required to intervene in life threatening events. The package will depict the basic skills of CPR and Emergency Response and what is expected of a bystander in the event of a cardiac arrest.
5. Public Awareness: Though stated earlier as a not-so-effective means of teaching, it may prove to be the only measure applicable for the target population that are in the market place. A team of trained personnel would organize an outreach to major commercial sites in the various states and teach the basics to marketers using play-lets and human models.

6. Collaboration with Primary Health Centers: These health centers are usually located in the local governments. In order to reach natives of those areas, the BACERS team will offer training to the staff in those centers and subsequently equip them to train other indigenes of their localities. John C Maxwell calls it the Law of Explosive Growth. [7]
7. Collaboration with the media corporation: for the group of people that may not be reached in the various places stated above, creating commercials on TV stations will be effective. Commercials that depict CPR stages and scenes of emergencies like drowning, heart attack and others, will help to consolidate the idea that they too can do something when a person suddenly slumps. We all can testify that TV commercials have a way of teaching and creating long term memory effortlessly. The team will simply use this principle to educate the functional unit of the community; father, mother and their children.

0.5 Possible Challenges

Every innovation has its challenges and in developing countries they usually are;

1. Cost of Implementation: the strategies are supposed to be cost effective. However, with the current economic state of the nation, every financial feat must be carefully planned in order to achieve the goals of the project.
2. Cultural barriers: language may be a barrier to communication. Some words may not be able to be appropriately translated in the various languages in Nigeria.
3. Chain of accountability: in areas where people will be trained to train others, it may be difficult to sustain the chain of accountability at a maximum rate. This

will mean that the team has to revisit those areas regularly to ensure the trainings have continued.

4. Idiosyncrasies: emergency response and CPR generally is a procedure that requires promptness and proactivity. Individual differences will affect acceptance of training and even the ability to act on the scene of a cardiac arrest despite having the knowledge.

0.6 Conclusion

An ideal society would gladly accept programs that will prevent deaths and impact knowledge. The BACERS project will ride on this fact and penetrate all groups in society; men, women, educated, uneducated, children, market people, doctors, nurses, other professionals and so on using the strategies provided above. Despite the challenges peculiar to Nigeria, success is attainable as long as there is a willing team on ground and with all hands on deck, deaths due to SCD will reduce in Nigeria.

0.7 Bibliography

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NB: All information provided regarding the Cervibreast application and Arm Our Youth Campaign were obtained from the Foundation's website and videos provided by the foundation.