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Editorial

Basic life support skills training among general public – Need of the hour

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Basic Life Support (BLS) or Cardiopulmonary resuscitation (CPR) is the first line of management in out-of-hospital cardiac arrest (OHCA). It is generally done by laymen or bystanders until medical intervention can be started.¹ Conditions that cause a sudden collapse in out-of-hospital scenarios include sudden cardiac arrest (SCA), heart attack, stroke, foreign body airway obstructions, trauma, heat stroke, etc. A victim's outcome depends on early detection of symptoms, calling emergency medical services, and early BLS provided by bystanders. Early recognition of cardiac arrest and early BLS makes a huge impact in improving the chances of survival and reducing morbidity and mortality. Components of BLS include the use of automated external defibrillators (AED) along with cardiac compressions, airway support, and defibrillation.²

It is of paramount importance that anyone who could be available in the area is aware and capable of performing adequate resuscitation procedures. Since most emergencies are faced at home or the workplace, everyone in the community should have the basic knowledge of early recognition of emergency conditions and the BLS protocol, which can be helpful in such cases. Mortality and morbidity due to OHCA are very high in developing countries as compared to developed nations, partly because of a lack of awareness and training about basic life support in the general public. A typical emergency medical response

system also takes time and is still not established in most places in India. OHCA causes systemic ischemia and lack of oxygen to vital organs, including brain tissue, and results in permanent damage within 5 minutes of cardiac arrest in the absence of effective BLS. Providing timely BLS increases the chance of survival by 2 to 4 times. BLS techniques are easy to apply and may help to save a life if done effectively. With each minute as resuscitation is delayed, the likelihood of survival following a sudden cardiac arrest reduces by 7–10%.³ Hence, it is important that bystanders or the general public should have the knowledge, and they should receive BLS training as a part of the school/ college/ or professional curriculum.⁴ Knowledge, awareness, and skill regarding BLS among the general population are variable worldwide. Studies from the United States, Japan, European countries, and China reported a high level of awareness among the general population, whereas Saudi Arabia, Jordan, and Turkey reported low awareness regarding BLS skills.^{5–8} In India, the level of knowledge about BLS among the general public has been reported to be low by various studies.^{9,10}

The knowledge and skill training regarding BLS should be provided in schools, colleges, medical institutions, universities, and workplaces. Television, internet, and print media can be effectively used to increase awareness regarding BLS. There are several reasons bystanders have difficulty performing CPR, including inadequate knowledge or training, a lack of skill or confidence, and a fear of legal

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action. To mitigate these roadblocks, it is better to start early. Nowadays, high school students are smart enough to travel, go to movies, gaming, party, and drive. Surely, they can learn these skills, which will be helpful in saving the lives of their family members and the general public. Studies have shown that it is beneficial to train school students who are already in the learning phase of their lives, thus increasing the trained workforce in the community.^{11–14} Globally, efforts are being made to train children in BLS and CPR, and the 'Kids Save Lives' statement has been endorsed to improve training for school-aged children further.^{15,16} In India, school-going children can also become a major BLS-trained workforce for the community.^{17,18}

Knowledge and training regarding BLS are also of paramount importance, as there has been an increase in sudden death in relatively younger populations in recent times under variable circumstances, including during or after exercising in the Gym. Many cases have been reported where healthy individuals suffered heart attacks or sudden cardiac death while exercising. If the Gym or other places such as malls and public transport places have AED and a trained workforce, many lives could have been saved.^{19,20} Our nation is in ignorance regarding this important issue, and that is why survival from OHCA in India is very low.

Conclusion: In the wake of an increase in OHCA, even in younger populations, it is important to train general public regarding basic life skills (BLS) so as to decrease morbidity and mortality from sudden cardiac deaths. There should be an availability of structured online and offline courses (similar to those offered in developed nations) that are affordable and easily accessible. Medical institutions should hold camps in schools, colleges, universities, and malls, as well as use digital resources (social media) to raise public awareness regarding the importance of BLS in disseminating knowledge and skills. The government should come forward, and BLS training should be made part of school and college education as well as other professional courses.

1. Conflict of Interest

None.

References

- Kleinman ME, Goldberger ZD, Rea T, Swor RA, Bobrow BJ, Brennan EE, et al. 2017 American Heart Association focused update on adult basic life support and cardiopulmonary resuscitation quality: An update to the American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circ*. 2017;137(1):e7–13.
- Berg RA, Hemphill R, Abella BS, Aufderheide TP, Cave DM, Hazinski MF, et al. Part 5: Adult basic life support: 2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circ*. 2010;5(18 Suppl 3):S685–705.
- Singer JL, Mosesso VN. After the lights and sirens: Patient access delay in cardiac arrest. *Resusc*. 2020;155:234–5.
- Jarrah S, Judeh M, AbuRuz ME. Evaluation of public awareness, knowledge and attitudes towards basic life support: A cross-sectional

- study. *BMC Emerg Med*. 2018;18.
- Sipsma K, Stubbs BA, Plorde M. Training rates and willingness to perform CPR in King County, Washington: A community survey. *Resusc*. 2011;82(5):564–7.
- Chen M, Wang Y, Li, Li X, Hou L, Wang Y, et al. Public knowledge and attitudes towards bystander cardiopulmonary resuscitation in China. *Biomed Res Int*. 2017;2017:3250485.
- Kuramoto N, Morimoto T, Kubota Y, Maeda Y, Seki S, Takada K, et al. Public perception of and willingness to perform bystander CPR in Japan. *Resusc*. 2008;79(3):475–81.
- Shaheen N, Shaheen A, Diab RA, Mohammed A, Ramadan A, Swed S, et al. Basic life support (BLS) knowledge among general population: A multinational study in nine Arab countries. *Arch Acad Emerg Med* 2023; 11(1): e47. 2023;11(1):e47.
- Modi PD, Solanki R, Nagdev TS, Yadav PD, Bharucha NK, Desai A, et al. Public awareness of the emergency medical services in Maharashtra, India: A questionnaire based survey. *Cureus*. 2018;10(9):e3309.
- Roy N, Murlidhar V, Chowdhury R, Patil SB, Supe PA, Vaishnav PD, et al. Where there are no emergency medical services: Prehospital care for the injured in Mumbai, India. *Prehosp Disaster Med*. 2010;25(2):145–51.
- Lewis RM, Fulstow R, Smith GB. The teaching of cardiopulmonary resuscitation in schools in Hampshire. *Resusc*. 1997;35(1):27–31.
- Miró O, Jiménez-Fábrega X, Espigol G, Culla A, Escalada-Roig X, Díaz N, et al. Teaching basic life support to 12–16 year olds in Barcelona schools: Views of head teachers. *Resusc*. 2006;70(1):107–16.
- Kanstad BK, Nilsen SA, Fredriksen K. CPR knowledge and attitude to performing bystander CPR among secondary school students in Norway. *Resusc*. 2011;82(8):1053–9.
- Jones I, Whitfield R, Colquhoun M, Chamberlain D, Vetter N, Newcombe R. At what age can schoolchildren provide effective chest compressions? An observational study from the Heartstart UK schools training programme. *BMJ*. 2007;334(7605):1201.
- Cave DM, Aufderheide TP, Beeson J, Ellison A, Gregory A, Hazinski MF. Importance and implementation of training in cardiopulmonary resuscitation and automated external defibrillation in schools: A science advisory from the American Heart Association. *Circ*. 2011;123(6):691–706.
- Böttiger BW, Semeraro F, Altemeyer KH, Breckwoldt J, Kreimeier U, Rucker G, et al. KIDS SAVE LIVES: School children education in resuscitation for Europe and the world. *Eur J Anaesthesiol*. 2017;34(12):792–6.
- Patidar AB, Sharma A. Attitude of school children towards basic life support in Punjab. *Int J Health Sci Res*. 2014;4:193–201.
- Stanley S, Babu A, Unnikrishnan R. Basic life support skills for high school students pre and post-cardiopulmonary resuscitation training: An interventional study. *Ind J Resp Care*. 2017;6(1):786–90.
- Gym regular dies during workout in Varanasi. Heart attack prevention tips from a doctor for gym-goers. 2024; Available from: <https://economictimes.indiatimes.com/india-news/gym-regular-dies-during-workout-in-varanasi-heart-attack-prevention-tips-from-a-doctor-for-gym-goers/articleshow/109770330.cms?from=mdr>.
- 19-year-old man collapses and dies on treadmill due to unknown reasons; Doctors shares 6 potential causes of gym-related deaths; 2023. Available from: <https://timesofindia.indiatimes.com/life-style/health-fitness/health-news/19-year-old-man-collapses-and-dies-on-treadmill-due-to-unknown-reasons-doctor-shares-6-potential-causes-of-gym-related-deaths/articleshow/103738877.cms>.

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