OUTCOME OF 'BASIC LIFE SUPPORT TRAINING' IN A BUSY DISTRICT GENERAL HOSPITAL

Ambreen Anwer, Wasim Ahmad Malik*, Ammanat Khan**

Department of Obstetrics and Gynaecology, Combined Military Hospital, *71 Medical Battalion, **Department of Anaesthesia, Combined Military Hospital, Kohat, Pakistan

Background: In view of the recently increasing terrorist attacks, hospitals have to devote an increased attention to Disaster Management. An effective way to do this is by preparing disaster plans and training 'hospital staff response team'. Most of the District General Hospitals (DGH) act as first point of contact in emergency. Our practical experience revealed that if the staff is not trained well for an organised and structured response, rather than help they can become an unnecessary hindrance. In the current scenario we felt a dire need to train as many staff members as possible in Basic life support (BLS). The objective was to train as well as assess the feasibility of training these skills to a mixed ability group of health professionals in a busy DGH. M**ethods:** Twelve training sessions of 1 hour/week were planned. Twenty-nine candidates with mixed ability health workers (5 Medical Officers, 10 Nurses, 9 Nursing Assistants, 2 LHV, 3 Ayahs) were enrolled. Each session was planned as initial 20 min lecture presentation followed by practical demonstration and 30 minutes hands on training with final 10 minutes for feedback. Final Assessment was performed by an independent assessor. Post training feedback was acquired through an open ended questionnaire. **Results:** The outcome of training showed 24 participants fully trained and successful in first attempt. There were total 5 drop-outs during the training program. **Conclusion:** It is feasible to run this program regularly in a District General Hospital with few adjustments in the administrative arrangements. Results of training can be much more improved if institutional commitment is linked to such training pursuits and 'protected teaching time' is ensured.

Keywords: Basic Life Support, Life Support Courses, Emergency Medicine, Disaster management

INTRODUCTION

Many sudden cardiac arrest (SCA) victims can survive if bystanders act immediately while ventricular fibrillation (VF) is still present but successful resuscitation is unlikely once the rhythm deteriorates to asystole. The American Heart Association[1] uses 4 links in a chain —the 'Chain of Survival'

- Early recognition of the emergency and activation of the emergency medical services
- Early bystander CPR: immediate Cardio-pulmonary resuscitation (CPR) can double or triple the victim's chance of survival from VF SCA
- Early delivery of a shock with a defibrillator: CPR plus defibrillator within 3 to 5 minutes of collapse can produce survival rates as high as 49% to 75%
- Early advanced life support followed by post resuscitation care.

A medical professional (doctor/nurse/ paramedic) trained in Basic Life Support (BLS) can perform 3 or possibly all 4 of these time sensitive actions for the victims of VF SCA. It is essential for health professionals to know the BLS sequential assessments and actions. Health professionals and medical students may be taught how to use available resources for dealing disasters and emergencies, when called for.[4] The individuals trained in BLS will become an important member of health provider community as well as society.

Because of recent terrorist attacks, hospitals should be devoting increased attention to disaster preparedness by organising disaster plans and training hospital staff to respond to such incidents. Most of the District General Hospitals (DGH) act as first point of contact in emergency and are on red alert to receive mass casualties especially in sensitive areas most of the time. We noticed during practical exposure that if the hospital staff does not know what to do in emergency, rather than help they can become an unnecessary hindrance in dealing with these casualties.

In the current scenario we felt a dire need to train as many staff members as possible in BLS. The objective was to see the feasibility of training BLS skills to a mixed ability group of health workers in a DGH.

MATERIAL AND METHODS

This descriptive study was conducted at Combined Military Hospital (CMH) Kohat. Hospital staff were checked at random for knowledge and practical skills of BLS and were found extremely deficient in both areas. A verbal interview at the end of session revealed a positive attitude to gain these skills through training if offered.

On the basis of this preliminary data a training program was planned over 12 weeks, i.e., from Dec 2008 to Feb 2009. Twelve training sessions of one hour/week were planned. Twenty-nine

candidates were enrolled with 4 active participants to be trained in each session. Every 5th session was reserved for final assessment. Last two sessions were reserved for committed training of the struggling candidates.

Each session was planned as initial 20 min lecture presentation on Basic Life support. Next 10 min were dedicated for practical demonstration followed by 30 min for Hands on Training and final 10 min for feedback.

Final Assessment was performed by an independent assessor (Medical Specialist and certified BLS tutor). All candidates were pre-informed of the assessment date. The assessment was directed to assess knowledge, skills in BLS, and the attitude of trainees (confidence, sense of urgency, following the proper order of drill). Completion certificates were awarded to successful candidates. Post training feedback was acquired through questionnaire.

RESULTS

A total of 29 volunteers were enrolled at the outset. The professional categories enrolled were 5 Medical Officers, 10 Nurses, 9 Nursing Assistants, 2 Lady Health Visitors, and 3 Aayas. All involved health care professionals had minimum basic education standard till middle (had passed class 8th).

The outcome of training showed 24 participants (83%) fully trained in BLS at the end of 12 weeks. Out of these 24 successful candidates twenty-one (87.5%) were found successful in first attempt while 3 (12.5%) required extra coaching and were declared successful only after reassessment. There were total 5 (17.24%) dropouts during the training program.

Table-1: Professional categories enrolled

Professional Category	Number	%	Drop-outs
Medical Officers	5	17	nil
Nurses	10	35	nil
Ward boys	9	31	4
Lady Health Visitor	2	7	nil
Ayah	3	10	1

Table-2: Results of Feedback questionnaire

Question	Response	No. (%)
Did you find the activity useful	Yes	29 (100%)
Do you want such activities to continue	Yes	22 (76%)
Will you be willing to come in evening	Yes	19 (65%)
Will you be able to come on Sundays	Yes	18 (62%)
What was the biggest challenge	To squeeze time from duty To clear assessment To learn the sequence	21 (72%) 3 (11%) 5 (17%)
Why did you drop out	Fear of Failure Transfer/Posting No incentive or penalty	3 (60%) 1 (20%) 1 (20%)

Table-3: Overall Challenges faced during the training program

1. Trainees and trainers had to squeeze time out of daily schedule
2. Trainees lacked commitment to spare personal time after duty hours
3. The activity had no commitment at the institution level, therefore management did not feel bound to provide 'Protected teaching time'.
4. No official risk/benefit was attached with the training therefore trainees could not be forced for diligence

DISCUSSION

Caught among a crisis in addition to immediate measures an issue of importance is that of capacity building and development for future.[3] Disasters almost always present a window of opportunity to rebuild old, ineffective structures. Similarly in health sector current situation demands developing health policy and practice in a way that leaves behind a more empowered, resilient health provider community. All team members need to have sense of being useful member of the health community. Academics and Professionals have an obligation to transfer existing knowledge in mitigation, and they need to create training modules and guidelines for this purpose.

Although learning is something undertaken and developed by individuals, organisational arrangements can foster or inhibit the process. The organisational culture within which individuals work shapes their engagement with the learning process. More than this, there are serious questions about whether and how the organisation can harness the learning achieved by its individual members.

Initially it was a challenge to engage staff other than doctors and nurses in this learning exercise. The obvious question was how to make this knowledge package interesting as well as to make it so simple that all groups can understand and retain it. We worked on planning the teaching strategy accordingly. For each session we had to recruit 4 active participants. We ensured that each group is of mixed ability. Each session was balanced with one doctor/nurse linked to 2–3 paramedics. For each manoeuvre we used a visual example from day to day life to which the paramedic staff can relate.

The challenges we met during this training exercise were that the trainees and trainers had to squeeze time out of their daily duty schedule. We noticed that trainees lacked commitment to spare personal time after duty hours. Because the activity had no commitment at the institution level, therefore management did not feel bound to provide any 'Protected teaching time'. As no official risk/benefit were attached with the training, therefore trainees did not feel bound for any extra diligence.

Hoffman and Donaldson experience three tensions influenced clinical teaching: 1. patient census;

2. time sensitivity of the context; and 3. the multiple and conflicting commitments of participants. Time functioned as an important element influencing the pace of action, reflective and interpretative cognitive processes of the team and the general fatigue of the team.[3] Despite these hurdles we did find an overall keenness to learn and improve technical skills in individuals of medical team at all levels.

Post program questionnaire highlighted that if not more, quality of personal life is as much important to younger medics as is their professional life. Doctors in non-training posts (participants) did not volunteer to attend such extra learning sessions in evenings or on Sundays. Other categories did not so strongly perceive it as a problem and did show a readiness to put in extra hours for learning if required. Nurses showed strongest commitment to learn among all categories of trainees (100% participants of this group showed willingness to attend training sessions out of hours).

Formal teaching and training has traditionally been part of university hospitals. In terms of equipment and human resource DGH's are now upgraded. Most of the specialists are postgraduate specialists and enjoy a wide case mix. These hospitals have a great potential as learning centres. The evidence to support this statement is that most of the departments are recognised by the College of Physicians and Surgeons Pakistan for postgraduate training. We now suggest that learning needs to take a more central role at district level general level hospitals. Two-day weekend courses for integrated teams of health care providers can be organised at regular basis in such hospitals in each region. While the university hospitals can focus more on postgraduate and undergraduate training, District General Hospitals can become centres of training for allied courses as BLS and Advanced Cardiac Life Support (ACLS), Advanced Trauma and Life Support (ATLS) and Managing Obstetric Trauma and Emergency (MOTE). This strategy will not only ensure a well planned, organised and coordinated team response to emergencies from medical team to all natural and man-made disasters but will also ensure a judicious use of existing resources.

CONCLUSIONS

It is feasible to run this program regularly in DGHs with a few adjustments in the administrative arrangements. Despite these hurdles we did find an overall keenness to learn and improve technical skills in individuals of medical team at all levels. Results of training can be much more enhanced if institutional commitment is linked to such training pursuits and 'protected teaching time' is ensured.

REFERENCES

1. 2005 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation 2005;112:IV-1–IV-5.
2. Seynaeve G, Archer F, Fisher J, Lueger-Schuster B, Rowlands A, Sellwood P, *et al*. Education Committee Working Group. International Standards and Guidelines on Education and Training for the Multi-disciplinary Health Response to Major Events that Threaten the Health Status of a Community. Prehospital Disaster Med 2004;19(2):S17–S30.
3. World Bank (WB) and Asian Development Bank (ADB). Gujarat Earthquake Recovery Program: Assessment Report March 14, 2001. p.5.
4. Hoffman KG, Donaldson JF. Contextual Tensions of the clinical environment and their influence on teaching and learning. Med Edu 2004;38:448–54.

Address for Correspondence:

Dr. Ambreen Anwer, Classified Gynaecologist, CMH, Quetta, Pakistan. Cell: +92-322-9076183
Email: Wamber_19@yahoo.com