LITERATURE REVIEW

BMY Cheung (2003) Conducted a study regarding knowledge of CPR among the public by telephone questionnaire survey in Hongkong. Study was conducted among 357 people; approximately 12% had received CPR training. CPR knowledge in Hongkong was poor, even among the previously trained and especially with regard to circulatory maintenance. Intensified educational efforts and exploration of new approaches to improve this first stage in the chain of survival are warranted.

Chandrasekaran Shanta, (2010) conducted a study to assess the levels of awareness to BLS and its practical knowledge among students, doctors and nurses of medical, dental, homeopathy and nursing colleges in a city in Tamil Nadu, India. The study revealed that everyone had very poor knowledge on BLS.

Szogedi I, Zrinyi M, et al (2010) conducted a retrospective study about training nurses for CPR: support for the problem based approach in Hungry. Data on final CPR exam grades. Collected both from PBL and traditionally trained students were obtained for a total of 1775 students between 2000-2007 in the major school of health sciences in Hungary. Students who received PBL training and better final CPR exam grades than traditionally trained person. Students who attended PBL classes achieved greater theoretical knowledge and demonstrated better resuscitation skill when tested. Whether or not PBL is superior in real life application of CPR practice is yet to be confirmed.

Parashar, Anil Kumar. (2010) done quasi-experimental study to assess the effectiveness of planned teaching program on knowledge and practice of Basic Life Support among high school students in Mangalore. The sample consisted of 40 rural high school students. The study showed that majority (87.5%) of the students had inadequate knowledge and (100%) had poor practice. The planned teaching program facilitated them to update their knowledge and practice related to Basic Life Support. Hence, the planned teaching program is an effective teaching strategy to improve knowledge and practice of sample on BLS.
Angélica Olivetto Almeida (2011) had analyzed Descriptive study on the theoretical knowledge of nurses working in these units concerning cardiopulmonary arrest and resuscitation. The respondents displayed some gaps in their knowledge such as how to detect Cardiopulmonary Arrest (CPA). The average score on a scale from zero to ten was 5.2 (± 1.4). The nurses presented partial knowledge of the guidelines available in the literature.

Dr Singh, Gurbir (2011) conducted The workshop regarding CPR. Many of them who attended had a lack of knowledge about CPR. To teach the bystanders can help, a life support skills training workshop called Family and friends CPR programme was organized at a private cardiac hospital in Mohali. Over 30 people from diverse fields ranging from top management of companies in Tricity to college going students participated in the workshop. They were imparted training on basic steps of CPR and were also taught to use automated external defibrillators.

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Peter A. Meaney M.D., Robert M. Sutton et all (2012) research on Training Hospital Providers in Basic CPR Skills in Botswana: Acquisition, Retention and Impact of Novel Training Techniques prospectively randomized to 3 training groups: instructor led, limited instructor with manikin feedback, or self-directed learning. Using existing training, HCP acquire and retain skills, yet often require remediation. Novel techniques with increased student: instructor ratio and feedback manikins were not different compared to traditional instruction.

B.Elizabeth Delasobera (2012) conducted An evaluative study to determine the effectiveness of simulator and multimedia educational tools in India. Basic Life Support certified paramedic students were randomized to either simulation or reading for a 3 hour BLS refresher course. Simulation students received a lecture and 10 simulator classes. The result showed that on post
test simulation demonstrated greater improvement managing cardiac arrest scenarios compared to reading.

**Abdullah Alanazi, Bin-Hotan,(2013),** conducted study on Community Awareness About Cardiopulmonary Resuscitation Among Secondary School Students in Riyadh Across-sectional design study was conducted by assessing the responses to self administered developed questionnaire As a conclusion / recommendation: It was found that the overall attitude is positive towards CPR. However, the proper CPR information was insufficient. Since CPR plays vital role in saving people life more studies are needed to examine the CPR information among people who live in the community and suggest strategies to introduce CPR training.

**Umran Dal Dilek Sarpkaya  (2013)** conducted a quasi-experimental and longitudinal A questionnaire was applied to the students before the CPR lecture. One and six months after this training the same questionnaire and skills checklist of CPR were applied. On Conclusion: Nursing students tend to forget theoretical and applied CPR training after couple of months. Hence there is a need for continuous CPR training and education and repeating the skills at regular intervals even after they have graduated to ensure sustainability in the CPR skills.

**Tomasz Ilczak, Monika Mikulska, Michal Cwiertnia et al(2013)** conducted study on Nurses’ skills assessment in administering cardiopulmonary resuscitation (CPR) to an adult This study describes assessment of practical skills in performing cardiopulmonary resuscitation, carried out among 50 nurses The obtained results are not satisfactory, the level of knowledge and skills among the sample group is insufficient to properly implement the CPR algorithm

**Adedamola Olutoyin Onyesso(2014),** cross-sectional study aimed at assessing the attitude towards cardiopulmonary resuscitation among some secondary school students in rivers state, nigeria The findings revealed that 98.8% exhibited positive attitude towards learning CPR among others. It was concluded that this can form a strong basis to introduce the teaching of CPR in their school curriculum so as to prepare them to be effective bystanders in situations of emergency needing CPR.
Dr. Patsy Cullen, Capstone Chair (2014) conducted research on Basic Life Support (BLS) Knowledge and Skill Retention and Increased Self-efficacy for Rural Health Care Providers. Victoria Birkeland. The purpose was to provide an opportunity for the rural health care providers to maintain their BLS skills set. Conclusion of study was Small rural facilities may not think they have the resources or the ability to investigate issues and promote evidence-based practice, but this study demonstrates they can by networking and forming collaborative partnerships.

Aziz Shahrakivahed et all, (2015) conducted quasi-experimental study on The Effect of CPR Workshop on the Nurses’ Level of Knowledge and Skill. Study was conducted on 140 nurses of Zabol University of Medical Science in a single group (before and after and three months after the training workshop) the conclusion of Workshop training method on CPR can be useful and effective in the nurses’ knowledge and skill.

Bander Aziz Al Enizi, Nazmus Saquib, et al (2015) conducted A cross-sectional study on Knowledge and Attitudes about Basic Life Support among Secondary Teachers in Al-Qassim, Saudi Arabia in the secondary schools in Al-Qassim region in 2015. Thirty of 99 schools were randomly selected; Teachers completed the questionnaire. Conclusion was In Al-Qassim, secondary school teachers lack CPR training and hence have little knowledge or skills. Teachers are willing and desire to have more CPR training available to them. Should health officials provide future training, teachers could serve the community better.

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Rachel Jia Min Ko(2015) A literature search was conducted in the following databases:
Cumulative Index to Nursing and Allied Health Literature, Science Direct, Scopus and PubMed from January 2003 to January 2014, to include research studies that compared compression-only CPR with standard CPR on participants above the age of 21, and reported quality of CPR performance as the primary outcome. Conclusions More studies are needed to determine whether compression-only CPR can indeed help improve rescuers’ CPR performance.

**Christy L. Hopkins, M;et all (2016)** study conducted on Implementation of Pit Crew Approach and Cardiopulmonary Resuscitation Metrics for Out-of-Hospital Cardiac Arrest Improves Patient Survival and Neurological Outcome conclusion of study was A multifaceted protocol, including several American Heart Association best practices for the resuscitation of patients with OHCA, was associated with improved survival and neurological outcome’

**Audrey L. Blewer, Mary E. Putt, et all (2016)**, performed a prospective, cluster randomized trial of CPR education for family members of patients with high-risk cardiac conditions on hospital cardiac units, using a multicenter pragmatic design findings suggest a potential trade-off in efforts for broad dissemination of basic CPR skills; VO training might allow for greater scalability and dissemination.

**Camilla Hansen, Stinne E Rasmussen,(2016)**,The aim of this study was to investigate certified BLS instructors’ assessment of chest compressions and rescue breathing. Data were collected at BLS courses for medical students at Aarhus University, Denmark. In pairs, in Conclusions: Certified BLS instructors assess performance of chest compression depth and rescue breathing poorly. This emphasizes the need for educating instructors in CPR assessment. The use of feedback devices to support instructors’ assessment of CPR skills may be beneficial to ensure high-quality learning outcome.

**Archa Biju, Yogesh Kumar and Jyoti Sarin (2016)** performed A Quantitative research approach on Effectiveness of child cardio pulmonary resuscitation (CPR) training programme in
terms of practice retention among nursing students CPR training programme was effective in enhancing the practice of Nursing Students regarding CPR and there was poor retention of CPR practice among nursing students.

**P.Seenivasan,R.Tamilarasi, et all (2016)** a cross sectional study was carried out among randomly selected 456 medical students including second year, pre final year, and final year MBBS students, CRRI and Post Graduates from August 2015 to November 2015. Pre-tested semi-structured questionnaire was used to collect data. Conclusion: This study found that there is lack of adequate knowledge about BLS among undergraduate medical students. The major lack of knowledge is due to lack of training. But the students are interested in learning BLS if it is made as a part of curriculum. Hence it is essential to train the students from undergraduate level to make them competent.

**Dr Padma Bhatia, Dr D K Pal, (2016)** performed a research on Educational and Interventional Study on CPCR Among 90 Nursing Student of Central India. This was a 3 point cross sectional study conducted on the nursing student of 1st /2nd/3rd year enrolled in Hamidia Hospital Bhopal carried during a period of 3 month in 2015. conclusion: General knowledge as well as skills regarding CPCR is poor even among the nursing staff. There is clear need for a review of basic life support education in hospitals.

**A.Y.Kshirsagar1, Sangeeta Biradar,(2016)** A cross-sectional Observational study conducted among nursing staff and students of the Krishna institute of nursing science, Karad. Maharashtra on Knowledge of Basic Life Support among the Nursing Staff and Students of KIMSDU, .Conclusion:It can be concluded that not only the nursing staff and students be trained in Basic Life Support, but also it has to be reinforced from time to time, since the skills of CPR are difficult to teach and once taught difficult to retain.

**Madavan Nambiar, Nisanth Menon Nedungalaparambil, Ottapura Prabhakaran Aslesh(2016)** A cross-sectional study was conducted to evaluate the current practices and knowledge of BLS/ACLS principles among healthcare professionals of North-Kerala using pretested self-administered structured questionnaire. Answers were validated in accordance with
American Heart Association's BLS/ACLS teaching manual and the results were analysed. Conclusion: Inadequate knowledge of BLS/ACLS principles amongst healthcare professionals, especially physicians, illuminate lacunae in existing training systems and merit urgent redressal

Philip S Robinson, Emma Shall, Roby Rakhit (2016) conducted Cross-sectional survey To assess the perceptions of leadership and team working among members of a cardiac arrest team and to evaluate future training needs. The findings suggest a pressing need for further dedicated cardiac arrest leadership training with a focus on improving key leadership tasks such as role assignment, team briefing and debriefing.

M. Mäkinen, M. Castrén, (2016) conducted a study to assess trainers’ attitudes towards cardiopulmonary resuscitation and defibrillation (CPR-D), Current Care Guidelines, and associated training. A questionnaire was distributed to CPR trainers attending seminars in Finland focusing on the updated national Current Care Guidelines 2011. On Conclusion. Quality of undergraduate education affects the work of CPR trainers and some feel uncertain of defibrillation. The train-the-trainers courses and undergraduate medical education should focus more on practical scenarios with defibrillators and nontechnical skills.

Bindhu Vausedvan, Anupa Lucas, (2016) A cross-sectional Analytic study was conducted among the medical and nursing students of Govt. Medical College, Kottayam. On Assessment of level of knowledge of basic life support algorithm among medical and nursing students in a tertiary care teaching hospital Conclusion Knowledge regarding the BLS was less among the students of Government Medical College, Kottayam, Kerala, India nursing students were having higher knowledge than Medical students.

Sanjeev Bhoi, Nirmal Thakur (2016), Prospective study conducted on “Does community emergency care initiative improve the knowledge and skill of healthcare workers and laypersons in basic emergency care in India?” aim of study was To improve the knowledge and skill of healthcare workers and laypersons in basic emergency care and to identify impact of the course. Conclusion of study was BECC is an excellent community initiative to improve knowledge and
skill of healthcare and laypersons in providing basic emergency care.

Linnéa Löwenborg (2016), conducted study on Alternative educational opportunity for new employees at Karolinska University Hospital. Everyone gets their own Mini-Anne training package funded by the HR. The day ends with a DVD film on a big screen with 40–50 people, each with a Mini-Annemanikin on. Conclusion: That they may keep their Mini-Anne as it can also be used for rehearsal or allow any member of their family to learn CPR with the help of the DVD disc included in the Mini-Anne box. It is a win–win situation for spreading knowledge of CPR.

Habib Md. Reazaul Karim1, Md. Yunus (2016) study on Comparison of effectiveness of class lecture versus workshop-based teaching of basic life support on acquiring practice skills among the health care providers. The present study was conducted among the health care providers. Participants were grouped in lecture-based class teaching and workshop-based teaching. They were then asked to practice BLS on mannequin (Resusci Anne with QCPR) and evaluated as per performance parameters based on American Heart Association BLS. Conclusion: Workshop-based BLS teaching is more effective and lecture-based class teaching better is replaced in medical education curriculum.

Khaled Abdallah Khader (2016), A cross-sectional survey done for Awareness and Knowledge of Health-College Students of Cardiopulmonary Resuscitation at Taif University, Saudi Arabia. A 20 items questionnaire developed by the researchers was used to collect data about awareness of participants of CPR. The reason for low scores of CPR survey is lack of theoretical and clinical training of up-to-date CPR in health colleges' curricula. This study recommended giving adequate BLS knowledge and training for all health professionals and included a BLS course in the curricula of health colleges.

Adedamola Olutoyin Onyeaso, (2016) conducted study on quasi-experimental study design carried on Cardiopulmonary resuscitation skills in some Nigerian secondary school students. They were exposed to both class room teachings and the practical hands-on sessions using manikins in line with the American Heart Association (AHA) guidelines. Conclusions: The CPR skills of the Nigerian students improved statistically with many ready to offer bystander CPR. It was recommended that CPR training programme should be incorporated into the curriculum of secondary school education in Nigeria.
Shane Lenson (2016) A search of the peer-reviewed and grey literature was conducted for narrative review. Journal articles were retrieved from three databases. 

Conclusion There is a lack of quality evidence to guide optimal training methods and maximise first aid knowledge retention in school children. Formal evaluation of professional first aid training can help guide training methods and maximise first aid knowledge retention in school children, thereby building more robust first aid capacity in the community.

M. Maier–M. Luger–M. Baubin (2016) conducted a Telephone-assisted CPR A literature review the aim of study overview of the extensive T-CPR topic. Studies from the online database PubMed from 1984–2016 were identified using the search criteria “cardiac arrest telephone”, “cardiac arrest dispatch”, and “dispatcher cpr”; also included in the evaluation were eight articles from PubMed about CPR in general which are marked in this article with an asterisk (*).

Ann M. Bowling PhD (2016), conducted study on A quasi-experimental design examined the effects of midlevel-fidelity simulation (n = 37) versus low-fidelity simulation (case study) (n = 37) in junior-level nursing students. There was a significant difference for both groups in knowledge and skill performance The results of this study indicate that further research is needed to support faculties’ selection of learning strategies with the lowest cost and highest effectiveness in achieving the desired learning outcomes.

Ming-Ju Hsieh Farhan Bhanji (2016), the Aim of study was to The efficacy of learning basic life support (BLS) through self-instruction is not clearly understood. The aim of our review was to compare the effect of self-instruction with that of traditional instruction on learners taking BLS courses. Method used to searched the Cochrane Central Register of Controlled Trials, MEDLINE, EMBASE, CINAHL, PsycInfo and SCI-EXPANDED databases for randomized control trials (RCTs) or randomized cluster-controlled trials published from January 1, 1966 to April 25, 2015

José Maria Gonçalves Fernandes (2014), conducted study on Teaching Basic Life Support to Students of Public and Private High Schools Conclusions: Before training, most students had
insufficient knowledge about CPR and AED; after BLS training a significant immediate and delayed improvement in learning was observed in students, especially in private school students.

**Francisco Javier Fonseca del Pozo (2016),** pre-test/post-test control design study to examine the Basic life support knowledge of secondary school students in cardiopulmonary resuscitation training using a song study showed that incorporating the song component in the cardiopulmonary resuscitation teaching increased its effectiveness and the ability to remember the cardiopulmonary resuscitation algorithm. Our study highlights the need for different methods in the cardiopulmonary resuscitation teaching to facilitate knowledge retention and increase the number of positive outcomes after sudden cardiac arrest.

**Prafulla A. Salunkhe (2016)** Effectiveness of Demonstration Regarding Cardiopulmonary Resuscitation on Knowledge and Practice among Policemen, Quantitative research approach and one group pre-test and post-test design was used Non-probability convenient sampling method was used to select 50 policemen as a study subjects. Conclusion- equal positive response to the demonstration and teaching was found really useful to them, which will help them to take prompt decisions, perform cardiopulmonary resuscitation and save many lives of out-of-hospitals cardiac arrest victims.