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Research Article

**DESCRIPTIVE CROSS SECTIONAL STUDY TO EVALUATE
THE AVAILABILITY OF AWARENESS OF BASIC LIFE
SUPPORT AMONG PEOPLE LIVING IN SHADMAN AREA
LAHORE**¹Dr. Usama Umar, ²Dr. Sara Hanif, ³Dr Mehvish Batool¹Services Hospital, Lahore²Sheikh Zayed Medical College, Rahimyar Khan³WMO DHQ, Bhakkar**Abstract:**

INTRODUCTION: Basic life support is level of medical care which could be provided pre clinically in any trauma condition before any specialized medical treatment could be provided. Studies have shown that survival in trauma increases markedly if person is provided pre hospital support with less the time elapsed between trauma and medical facility. This is more important in developing countries like Pakistan where general public awareness about BLS can provide good hand to compensate limited health budget and poly-trauma incidents. So rely upon general public provides a good hand in improving post trauma survival and thus strengthens health care steps.

Objectives: To evaluate the availability of awareness about BLS and about acknowledgement of its importance.

Study Setting And Design: Descriptive cross sectional study held in Shadman area Lahore. **Materials &Method:** 50 male subjects with age >15 years included in study & results analysed using SPSS.

Results: Of 50 subjects, age of most (74%) was in range of 16-25 years and 80% knew about emergency phone number, 96% believe that in cases of emergency surrounding people should be called to attention toward the victim. 68% tried to help at least once in past but only 22% know about proper BLS procedures, people are highly willing (100%) to learn about BLS and think that it can improve survival and most preferable method they think is electronic media. In addition, significant correlation was found between awareness about BLS and will to go for help and that age and education has no significant effect on BLS awareness.

Conclusion: People acknowledge the importance of basic life support but awareness of people about basic life support is very poor, people are eager to learn about it and programs should be designed according to people convenience

Keywords: Basic life support, awareness, Shadman.

*** Corresponding author:**

Dr. Usama Umar,
Services Hospital,
Lahore

QR code



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INTRODUCTION:

Basic life support is level of medical care which could be provided pre clinically in any trauma or condition before any specialized medical treatment could be provided. It rests on ABC (airway, breathing, circulation) of medicine...In modern era, accidents and trauma incidents have increased and constitute a major part of deaths worldwide along with natural disasters, terrorist attacks and CVS disorders. It was documented by the World Health Organization (WHO) (2008) that the road traffic accidents are a global public health problem causing 1.2 million deaths and 50 million injured worldwide each year. As users of roads, all people whether a pedestrians or drivers are at risk of death or injury because of traffic accidents. In the case of traffic accidents people who are present at the accident area or those who arrive first play an important role for the survival of the casualties. Studies have shown that survival in trauma increases markedly if person is provided pre hospital support with less the time elapsed between trauma and medical facility (1,2,3)..This is more important in developing countries like Pakistan where general public awareness about BLS can provide good hand to compensate limited health budget and polytrauma incidents (4,5).

CVDs are the number one cause of death globally: more people die annually from CVDs than from any other cause. According to WHO statistics (2011), an estimated 17.3 million people died from CVDs in 2008, representing 30% of all global deaths. Low and middle income countries are disproportionately affected and over 80% of CVD deaths take place in low- and middle-income countries. The immediate delivery of Basic Life Support, coupled with the rapid delivery of advanced cardiac life support, can significantly reduce mortality from out-of-hospital cardiac arrest (6, 7, 8). Because the majority of sudden cardiac deaths occur in the victim's home with family members present, family members of cardiac patients at high risk for sudden death are the logical focus of CPR training.(6) However, previous research has shown that only a small minority of family members of cardiac patients actually learn CPR(9) and that health care professionals have failed to recommend CPR training in this population(10).

Similarly, natural disasters like earthquakes are important cause of morbidity and mortality worldwide. . According to the scientific data gathered by the U.S. Geological Survey Earthquake Hazards

Program (USGS) (2008), the most recent destructive earthquake occurred in Indonesia causing 5749 deaths and

38568 injured in 2006. In Pakistan, an earthquake killed about 86000 and injured 69000 people in 2005. Additionally, statistical reports by the Bağcı, Yatman, Özdemir, and Altın (1991) (as cited in General Directorate of Disaster Affairs(GDDA), 2007) revealed that 58202 people died and 122096 people were injured in last 58 years because of the earthquakes.

Whenever a person is injured with any of the above life threatening emergency events, actions taken by the surrounding people are important to prevent the worsening of the situation because it is known that arrival of the professional help takes time but it takes only three to four minutes for a blocked airway to kill. For these reasons, associations throughout the world urge upon need of educating people, medical students(11) and attending physicians about BLS protocols(12) In developing countries like Pakistan, limited health budget and poly-trauma incidents make this difficult to provide such large scale facilities. So rely upon general public provides a good hand in improving post trauma survival and thus strengthens health care steps(4,5)

So we are designing a study to get an idea about awareness of BLS in general population so that further improvements to upgrade the skill and its use can be advised

MATERIALS & METHOD:

STUDY DESIGN: Descriptive cross sectional study using structured questionnaire forms.

SAMPLE SIZE: Measured as 50 from Epi Info 7 with population size of 10,000 and confidence level of 96% & conf. limits of 5%.

STUDY AREA: Shadman market area Lahore.

DURATION: 1 month

SUBJECTS: Male subjects with age > 15 years and no disability

ETHICAL CLEARANCE: A written signed consent was taken from all subjects, explaining the purpose and procedure of study and assurance of anonymity.

DATA ANALYSIS: IBM SPSS V.20 used and results given in tables and charts

RESULTS:

AGE:

Table 1.1: Frequency Distribution According To Age

	Frequency	Percent	Valid Percent	Cumulative Percent
16-25	37	74.0	74.0	74.0
26-35	13	26.0	26.0	100.0
Valid Total	50	100.0	100.0	

EDUCATION:

Of sample of 50, 9(18%) were illiterate, 15(30%) with education up to matric level, 18(36%) in intermediate level and 8(16%) falling in category of bachelor to master level, summarized as given:

Table 1.2: Frequency Distribution According To Education

	Frequency	Percent	Valid Percent	Cumulative Percent
Illiterate	9	18.0	18.0	18.0
Under Matric	7	14.0	14.0	32.0
Matric	8	16.0	16.0	48.0
Intermediate	18	36.0	36.0	84.0
Bachelor to Master	8	16.0	16.0	100.0
Valid Total	50	100.0	100.0	

KNEW EMERGENCY PHONE NUMBER? :

As given below, 40(80%) knew about emergency phone number (1122) while 10(20%) did not even knew it.

Table 1.3: Frequency distribution According To Knowing Emergency Phone Number?

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	40	80.0	80.0	80.0
No	10	20.0	20.0	100.0
Valid Total	50	100.0	100.0	

HELPED IN HOUR OF NEED:

Results show that 34(68%) have tried to help people in case of any trauma or accident at least once in life and 16(32%) have not tried so, as summarized below:

Table 1.4: **Frequency Distribution According To People who Ever Tried To help**

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	34	68.0	68.0	68.0
No	16	32.0	32.0	100.0
Valid Total	50	100.0	100.0	

HELPED BY A METHOD? :

46(92%) used to believe that chest compressions in case of difficulty in breathing can help a person to survive while 4(8%) did not:

Table 1.5: **Frequency Distribution According To People Helped by a Method?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	46	92.0	92.0	92.0
No	4	8.0	8.0	100.0
Valid Total	50	100.0	100.0	

CALLING PEOPLE FOR HELP:

As summarized below, 48(96%) subjects used to believe that people in surroundings of an accident should be called to attention for help while 2(4%) believe in contrary:

Table 1.6 : **Frequency Distribution According To Should people are called to attention toward trauma for help?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	48	96.0	96.0	96.0
No	2	4.0	4.0	100.0
Valid Total	50	100.0	100.0	

KNOWLEDGE ABOUT BLS:

Interesting to note that out of 50 subjects, 11(22%) knew about proper basic life support procedures while 39(78%) had no idea about it.

Table 1.7 : **Frequency Distribution According To Awareness about B.L.S**

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	11	22.0	22.0	22.0
No	39	78.0	78.0	100.0
Valid Total	50	100.0	100.0	

WAY TO KNOW ABOUT BLS:

Table 1.8: **Introducing Person**

	Frequency	Percent	Valid Percent	Cumulative Percent
Electronic Media	39	78.0	78.0	78.0
Print Media	4	8.0	8.0	86.0
Conference and Seminars	5	10.0	10.0	96.0
Friends	1	2.0	2.0	98.0
Total	1	2.0	2.0	100.0
Valid	50	100.0	100.0	

SHOULD PEOPLE KNOW? :

Interesting to note that all the subjects 50(100%) agreed that BLS procedures should be known by all persons in the population:

Table 1.9: **Frequency Distribution According To Idea that Should public knows?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	50	100.0	100.0	100.0

PREFERABLE METHOD TO LEARN:

19(38%) subjects insisted on importance of electronic media for teaching general public about BLS, 13(26%) emphasized on books, literature etc. 14(28%) think this better to make BLS procedures a part of study courses while 4(8%) in favor of training campaigns:

Table 1.10: **Frequency Distribution According To Idea of Preferable Method To Teach BLS**

	Frequency	Percent	Valid Percent	Cumulative Percent
Electronic Media	19	38.0	38.0	38.0
Print Media	13	26.0	26.0	64.0
Training Campaign	4	8.0	8.0	72.0
Study Syllabus	14	28.0	28.0	100.0
Valid Total	50	100.0	100.0	

DISCUSSION:**DEMOGRAPHIC CORRELATIONS WITH BLS AWARENESS**

Our Study has shown that awareness about BLS is not correlated with Age and Education as their correlation is insignificant: ($p=.098$) and ($p=.164$) respectively. This can be stated as: it's not the case that more the age, more/less the awareness. Same with education: level of education is not correlated with BLS awareness. This is consistent with study by Lynch B(2005)w33 which shows that older people can effectively learn BLS procedures($p<0.05$).

But these results are contrary to study by w35 which shows a significant correlation between old age (<59 years) and unwillingness to go for help or perform CPR. So study is needed.

CORRELATION B/W BLS AWARENESS AND KNOWING EMERGENCY PHONE NUMBER:

Study shows that people who are aware about BLS are all aware of emergency phone number(1122) but 79% people who are unaware about BLS do not know about emergency phone number. Overall nearly 80% people know

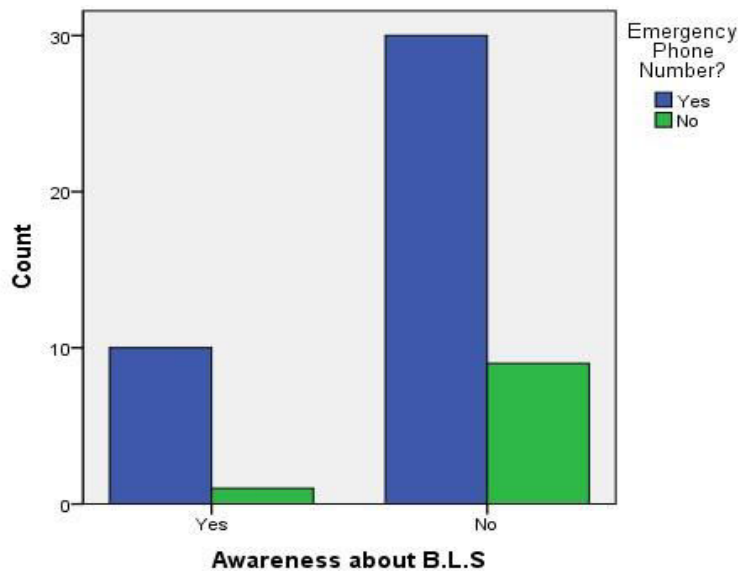
emergency phone number and this is consistent with the studies (6,7,8,9) as shown in literature review above.

Emergency Phone Number? * Awareness about B.L.S Crosstabulation Count

		Awareness about B.L.S		Total
		Yes	No	
Phone Number?	Yes	10	30	40
	No	1	9	10
Total		11	39	50

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Emergency Phone Number? * Awareness about B.L.S	50	100.0%	0	0.0%	50	100.0%



Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	56.041 ^a	6	.000
Likelihood Ratio	17.005	6	.009
N of Valid Cases	50		

CORRELATION B/W AWARENESS ABOUT BLS AND WAY TO KNOW ABOUT IT:

Study shows that 22% people actually know about BLS while 78% do not. This is consistent with results of

study (14) which showed that out of 61 students only 41% know about BLS but these results are much less than study in Riyadhuniversity where 69% students were aware about BLS although 85% of these considered it unsatisfactory. In our study The major media to be used for learning is print media and studies listed in literature review show that

70% thought that resuscitation should be a compulsory component of the New Zealand Driver's license test. Study at Riyadh university shows 45% believes that CPR training should be a graduation requirement.

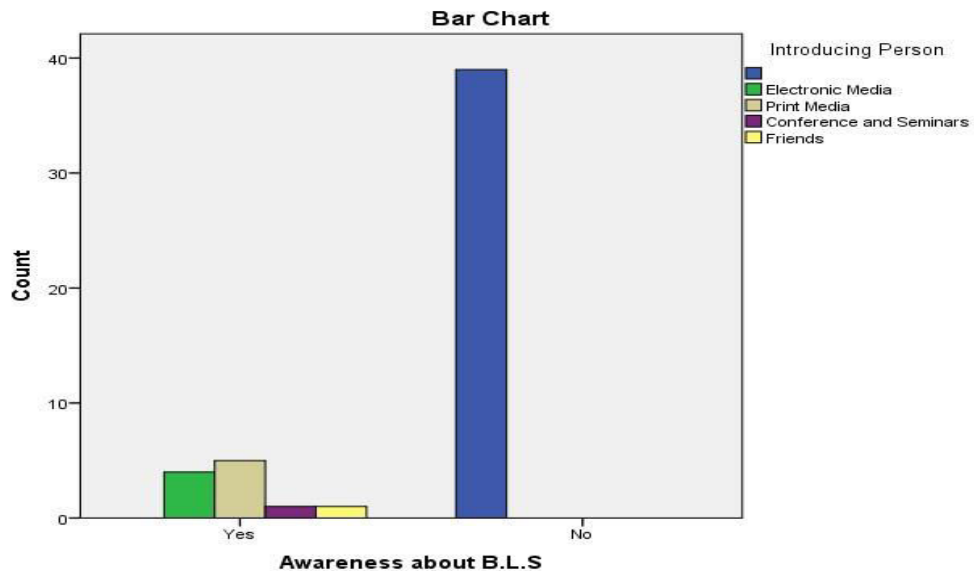
Awareness about B.L.S * Introducing Person Crosstabulation Count

		Introducing Person					Total
			Electronic Media	Print Media	Conference and Seminars	Friends	
Awareness about B.L.S	Yes	0	4	5	1	1	11
	No	39	0	0	0	0	39
Total		39	4	5	1	1	50

Chi-Square Tests

	Value	df	Asymp. Sig. (2sided)
Pearson Chi-Square	50.000 ^a	4	.000
Likelihood Ratio	52.691	4	.000
N of Valid Cases	50		

a. 8 cells (80.0%) have expected count less than 5. The minimum expected count is .22.



CORRELATION B/W BLS AWARENESS AND CALL TO GO FOR HELP:

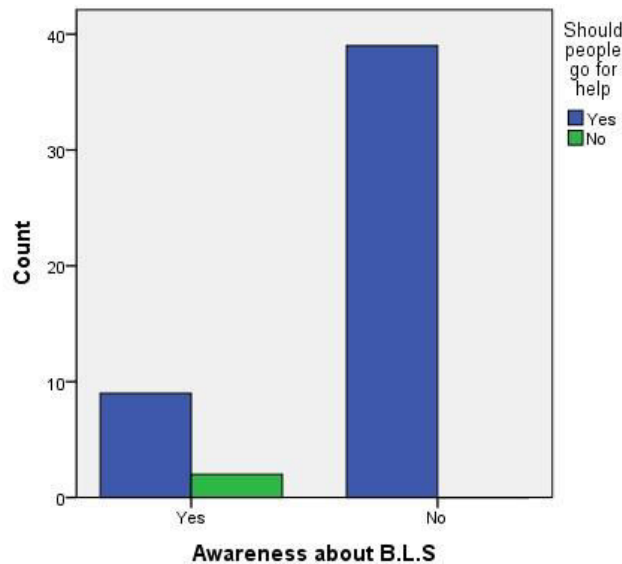
Calling the people toward emergency victim is basic component of BLS. Surprising to know that 96% people believe it although this fraction includes 76% of unaware people also know about it so most probable cause of this in our society could be efficiency of emergency medical service and increased awareness of people about this service.

Should people go for help * Awareness about B.L.S Crosstabulation Count

		Awareness about B.L.S		Total
		Yes	No	
Should people go for help	Yes	9	39	48
	No	2	0	2
Total		11	39	50

Chi-Square Tests

	Value	Df	Asymp. Sig. (2sided)
Pearson Chi-Square	7.386 ^a	2	.025
Likelihood Ratio	6.363	2	.042
No of Valid Cases	50		

**CORRELATION B/W KNOWING EMERGENCY PHONE NUMBER AND WILL TO GO FOR HELP:**

A study done in Norway schools as cited above shows that (83%) were willing to perform bystander CPR in a given situation with cardiac arrest. Most students (86%) supported mandatory BLS training in school, and three out of four wanted to receive additional training.

Similarly Study by w34 shows that the proportion of students showing willingness to perform BLS increased from 13% to 77% after the BLS training even when the collapsed person is a stranger. This is consistent with our study which shows significant correlation between awareness about BLS and willingness to go for help ($p=.025$).

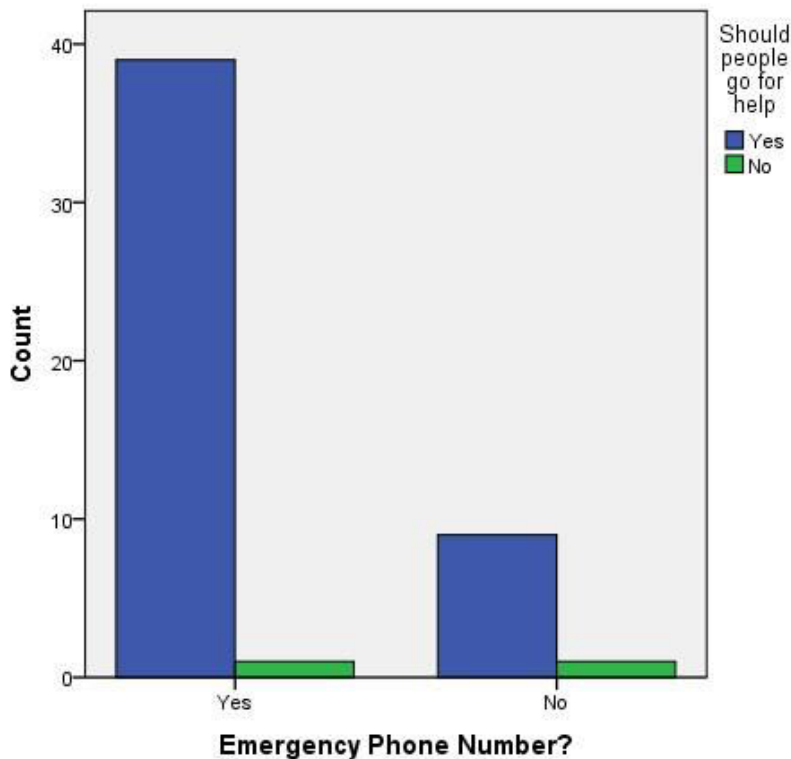
But surprise to note that people in real did not helped that much as correlation b/w emergency phone number and number of people who actually tried to help is not significant($p=0.787$)

Emergency Phone Number? * Should people go for help Crosstabulation Count

	Should people go for help		Total
	Yes	No	
Emergency Phone Number? Yes	39	1	40
No	9	1	10
Total	48	2	50

Chi-Square Tests

	Value	Df	Asymp. Sig. (2sided)
Pearson Chi-Square	24.609 ^a	3	.000
Likelihood Ratio	7.442	3	.059
No. of Valid Cases	50		



CONCLUSIONS:

Availability of awareness about BLS among people living in Shadman, Lahore was unsatisfactory. Education and age had not significant correlation with awareness about BLS. Although all people know about emergency phone number and acknowledged the importance of BLS but there is need to educate them about BLS properly. People are eager to learn about it and programs should be designed according to people convenience as electronic and print media.

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