

## A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING BASIC LIFE SUPPORT AMONG STUDENTS IN BABA FARID COLLEGE OF NURSING, KOTKAPURA (PUNJAB).

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### ABSTRACT

*Basic life support is an emergency procedure used for victims of life threatening illnesses or injuries until they can be given full medical care at the hospital. The objectives of study were to assess the effectiveness of Structured teaching Programme on knowledge regarding Basic Life Support among. Quasi experimental pretest and post test study design was adopted. Fifty students were selected by using random sampling technique. The interval between pre was seven days; data was analyzed and interpreted in term of objectives search hypothesis. Findings of study are represented in form of bar graph, table. Sociodemographic variables and their relationships with the level of knowledge scores among study subjects were studied.*

**Key words:** *Structured Teaching Programme, Basic life support.*

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**INTRODUCTION**

Basic life support is the level of medical care which is used for victim of life threatening illness or injured until they can be given medical care at hospital. It is an emergency procedure that consists of recognizing respiratory or cardiac arrest or both and proper application of CPR to maintain life.

Basic life support is given to victim by recognizing the signs of sudden cardiac arrest, stroke, airway obstruction, drowning, birth asphyxia, drug overdose. The equipment's used for basic life support are - trained personnel , oral airway , iv set up , external defibrillator with cardio scope , emergency cardiac drugs , electrocardiography machine , suctioning equipment's, oxygen tank , endotracheal tube, artificial manual breathing unit , bandage , cardiac board. While giving basic life support, there is chain of survival that should be followed is early recognition, early CPR, early defibrillation, early advance life care, post resuscitation care, respectively. CPR is mechanical attempt to maintain tissue perfusion and oxygenation using oral resuscitation and external cardiac compression. The "CABD" of cardiopulmonary resuscitation should be followed -

C - Circulation check

A - Airway opens [Use head tilt / chin lift or jaw thrust]

B - Breathing check [look, listen, and feel for 3-5 seconds]

D - Defibrillation [if it is used within 1 minute of the emergency, the survival rate is 90%]

The brain damage begins after 4-6 min and is certain after 10 min when no CPR is given. CPR should be given within 4 min and advance life support within 4 min. The chest compressions should be 100/min and the ratio should be 30:2 i.e. 30 chest compressions and 2 breathing in presence of rescuer. If the patient is unresponsive, immediate defibrillation rather than CPR is the treatment of choice. CPR is treatment of choice and it is performed initially only if the defibrillation is not available.

**Basic life support:-** Basic life support is the medical support given to the victim by identifying or recognition of signs of the sudden cardiac arrest, stroke and foreign body airway obstruction with aid of cardiopulmonary resuscitation, defibrillation. Basic life support does not include the use of drugs or invasive procedures. Following recognition of unresponsiveness, lack of pulse, respiration, the protocol for basic life support can be initiated.

**Principles of Basic Life Support:-**

The principle for providing basic life support is following the sequence of

- CIRCULATION IMPROVEMENT
- AIRWAY CLEARANCE
- BREATHING MAINTAINANCE AND
- DEFIBRILLATION

**NEED OF THE STUDY**

Basic life support performed by bystanders improves outcome in cardio-respiratory collapse. Yet less than 1% of the general population can perform it effectively. It has been estimated that 15-20% of the population could perform basic life support; out of the hospital mortality could be significantly reduced. The most effective way of achieving this is to teach this technique in school, colleges and making it a "Life skill".

The rescuer or resuscitator is just a common man who may have learnt a standard method of application of basic life support best suited to his skills. He is trained to reach the victim, identify problems and provide emergency care by using facilities or materials available at that time before arrival of the medical help.

Aroor AR, Saya RP, Attar NR, Saya GK, Ravinanthanan M, South India," Awareness about basic life support and emergency medical services and its associated factors among students in a tertiary care hospital in South India". This study was conducted to assess awareness among students regarding basic life support. This descriptive cross sectional study was conducted in a tertiary care hospital in South India. The awareness level on BLS and Factors associated which include age, sex, level of training and previous exposure to BLS was assessed by using a structured questionnaire. The association of these variables with awareness level was assessed by independent t test, analysis of variance, and linear regression analysis. Awareness level on BLS is below average indicating the importance of professional training at all levels in a tertiary care health institution.<sup>1</sup>

Dal U, Sarpkaya D, North Cyprus, Conducted the study on "Knowledge and psychomotor skills of nursing students in North Cyprus in the area of cardio pulmonary resuscitation." The study design was quasi-experimental and longitudinal. A questionnaire was applied to the students before the CPR lecture. Then the students were informed about adult CPR by the researchers and all the students practiced CPR. One and six months after this training the same questionnaire and skills checklist of CPR were applied. The results were, The CPR knowledge score of the students were increased after lecture as compared to before lecture scores

within one month while after conducting same test after six months shows decrease in the value of scores when compared with the previous scores.<sup>2</sup>

In India the outreach Programme about basic life support is limited in order to equip the people in community, it is very important to teach the members of the community about administration of basic life support. Knowledge regarding BLS to the young adult groups is necessary because they are the active energetic and productive generation in the community.

#### **PROBLEM STATEMENT**

**A study to assess the effectiveness of structured teaching Programme on knowledge regarding basic life support among Basic B.Sc. Nursing students in Baba Farid College of Nursing, Kotkapura (Punjab).**

#### **METHODOLOGY**

Methodology in research indicates the general pattern of organizing procedure together to obtain valid and reliable data for investigation. This chapter deals with brief description of methodology adopted for study.

1. Research Approach: It is quasi experimental research approach.

2. Research Design: Quasi experimental research design (pre and post test)

3. Research Setting: Baba Farid College of Nursing Kotkapura, Punjab.

4. Target Population: The target population included students presently studying in Basic BSc. Nursing 2nd & 3rd year selected Baba Farid College of Nursing.

5. Sample & Sampling technique:

a. Sample Size: The sample size of study consists of 50 students who met criteria selection.

6. Development of tool: The research tool was selected and development keeping in mind the objective of the study, review the practical sources, previous studies, internet and through discussion with experts.

Part: The tool was constructed in 2 parts.

Part1: Socio demographic data.

Part2: Questionnaire to assess effectiveness of planned teaching Programme among nursing candidate in which multiple choice questions were constructed.

7. Content validity: Tool was given to 5 experts for their valuable opinion and suggestion. The content validity was judged and their valuable suggestion was obtained and the tool is modified & finalized.

8. Scoring key: The key was prepared for selection and coding demographic variable, one score was given for correct. Thus maximum 30 scores were given for knowledge score.

9. Reliability: For testing the reliability of the knowledge check list was adopted.

10. Development of planned teaching Programme: The PTP was developed based on review of the related research and objective stated in teaching plan. The following steps were adopted to develop PTP:

\*Development of content blueprint.

\*Preparation of PTP.

\*Establishment of content validity of PTP.

11. Content of blueprint: A blueprint of objective and content items pertaining to knowledge on BLS was prepared for PTP schedule.

A. Preparation for first draft of PTP: A first draft of PTP was developed keeping in mind the objective, literature review and opinion of experts.

The main factors that were kept in mind while making PTP were:

\* Literacy level of sample

\* Method of teaching to adopted

\* Simplicity of language

\* Relevance of teaching aids and attention span of students

B. Content validity of PTP: Five experts were requested to validate the PTP based on criteria checklist and to comment on adequacy and relevance of the content the suggestion of experts will be selected by randomized sampling (convenient non probability sampling).

12. Data analysis method: The data analysis through description & inferential statistics.

a. Descriptive statistics: Frequency, mean, standard deviation of described demographic data.

b. Inferential statistics: The test will used to evaluate the effectiveness.

13. Procedure for data collection: Hence formal permission was obtained from principal of BFCN , KKP to conduct the study.

\*Period of data collection: The data is collected from to the purpose of the study was explained to sample and informed consent was taken before starting the study.

\*Pretest: Pretest was conducted with the help of questionnaire schedule.

\*Implementation: PTP was conducted for a period of 45 min on the knowledge of nursing students.

**14. Data analysis plan:**

- \*Frequencies and percentage for the analysis of demographic data.
- \*Mean and standard deviation of pretest and post test & PTP finalized.
  - \*Preparation for final draft of PTP: The final draft of PTP was prepared after in co-operating subject of experts & suggestion after consultation with guide.
  - \*Description of PTP: The PTP was titled "Knowledge" on BLS and contain Definition, indication, equipment, procedure, CPR.
- \*Planning for PTP:

a. Method of teaching: lecture cum discussion method was selected as an appropriate method for teaching to students. It was planned to teaching group since, group teaching permit exchange of views and broadens knowledge through wider interaction.

b. Determine the teaching learning: teacher and learner activity were determining well in advance and included the following:

# creating interest by monitoring & reinforcing

# Demonstration with Dummy

# Discussion

15. Pilot study: Pilot study is small version or trial done in preparation for a major study. Pilot study was conducted to ensure the reliability of tool of nursing students in BFCON, KKP. So sample was taken for pilot study & they were excluded from main study.

16. Data collection: The researcher will obtain permission from concerned authorities of principal of BFCON & sample score and "t" test was used to determine the significance between pre & post test knowledge scores.

- There will be significant to assess the effectiveness of Basic Life Support.
- There will be significant associated between score of the students with demographic data.
- There is significant difference between pretest and post test level of nursing students of Basic Life Support.

Table.1: Frequency and percentage distribution of Subjects response according to the Age group.

Age (in year)	Frequency	Percentage
19 Years	12	24%
20 Years	22	44%
21 Years	13	26%
22 Years	3	6%

Table 2 Frequency and Percentage distribution of subject According to area of residence.

Area of Residence	Frequency	Percentage
Rural	41	82%
Urban	9	18%

Table.3: Frequency and Distribution of Subjects according to the previous exposure to the life threatening situation.

Previous exposure to life threatening situation	Frequency	Percentage
Yes	24	48%
No	26	52%

Table.4: Frequency and percentage Distribution of Subject according to the type of Situation, if yes

Type of Situation	Frequency	Percentage
Cardiac arrest	4	8%
Respiratory arrest	3	6%
Motor vehicle accident	8	16%
Any other	9	18%
None	26	52%

Table 5: Frequency and percentage Distribution of Subjects according to the received any information about Basic Life Support

Information about Basic Life Support	Frequency	Percentage
Yes	46	92%
No	4	8%

Table 6: Frequency and Distribution of Subject according to the Source of Information about Basic Life Support

Source of Information	Frequency	Percentage
Mass media	20	40%
Health Personnel	21	42%
Information from parents/relatives	9	18%

Table 7 shows Mean knowledge score of structured teaching Programme among nursing candidates according to age group.

N=50

Age Group	N	Mean		Standard Deviation		Difference	T-Test Value at 0.05 level
		Pre test	Post test	Pre test	Post test		
19 year	12	7.5	23.4	3.86	1.93	25	13.8
20 year	22	11.3	23	2.93	1.12	12	18
21year	13	11.5	23	3.25	1.43	26	12.5
22year	3	12.3	23.3	0.46	0.46	11	42

Max Score = 50

Min score = 000

Table 8 Mean knowledge score of structured teaching Programme among nursing candidates according to current area of residence.

N = 50

Area of Residence	N	Mean		Standard Deviation		Differences	T-Test value at 0.05 level
		Pre test	Post test	Pre test	Post test		
Rural	41	10.3	23.0	2.31	1.50	10	20
Urban	9	10.8	22.7	2.99	1.22	13	11

Max Score = 50

Min Score= 000

Table 9 Mean knowledge score of structured teaching Programme among nursing students according to previous exposure to life threatening situation.

N = 50

Option	N	Mean		Standard Deviation		Difference	T-Test Value at 0.05 level
		Pre test	Post test	Pre test	Post test		
Yes	24	10.5	22.5	3.8	2.1	13	13
No	26	10.0	23.2	2.7	1.5	99	21

Max Score = 50

Min Score = 000

Table 10 Mean knowledge score of structure teaching Programme among nursing students according to types, if yes type of situation is

N = 50

Type of situation	N	Mean		Standard Deviation		Difference	T-Test value at 0.05 level
		Pre test	Post test	Pre test	Post test		
Cardiac arrest	4	13	23	1.41	0.70	80	14.2
Respiratory arrest	3	9.3	23	3.04	1.63	16	7.7
Motor vehicle accident	8	10.6	22.7	4.2	1.69	41	8.0
Any other	9	9.1	21.8	2.6	1.51	34	14.2
None	26	10.2	23.2	2.3	1.22	12	26

Max Score = 50

Min Score = 000

Table11 Mean knowledge score of structure teaching Programme among nursing students according to receive any information about Basic Life Support.

N = 50

Information	N	Mean		Standard Deviation		Differences	T- Test value at 0.05 level
		Pre test	Post test	Pretest	Post test		
Yes	46	10.5	23.1	2.30	1.44	73	16
No	4	8.5	22.2	2.16	1.48	76	11.4

Max score = 50

Min score = 000

Table 12 Mean knowledge score of structure teaching Programme among nursing students according source of information.

N = 50

Source of information	N	Mean		Standard Deviation		Difference	T- Test value at 0.05 level
		Pre test	Post test	Pre test	Post test		
Mass media	20	10	23	2.5	1.64	16	20.9
Health personal	21	10.2	23.2	2.3	1.3	15	23.8
Information from parents	9	10.2	22.7	1.7	1.5	36	20.8

Max score = 50

Min score = 000

Table 12 shows that pretest of nursing students of source of information between health personals and information from parents both had highest mean knowledge score 10.2,10.2 with SD 2.3 and 1.7 followed by mean knowledge score 10 in mass media with SD 2.5.

In post test of nursing students of source of information between health personal had highest mean knowledge score 23.2 with SD 1.3 followed by mean knowledge score 23 in mass media with SD 2.5 and mean knowledge score 22.7 in information from parents with SD 1.5. The difference in pre and post mean score was concluded and found statically non-significant at level 0.05 of t – test the calculated value more than table value so hypothesis is not accepted thus it was concluded that source of information had no effect on knowledge of structured teaching Programme among nursing students.

### CONCLUSION

It is concluded that the structure teaching Programme was effective that helped the students to improve their knowledge regarding basic life support.

## REFERENCES

1. **Passali C, Pantazopoulos I, Dontas I, (2011):** Adherence to study on lack of resuscitation skill of nurses and doctors in basic life support from [www.ncbi.nlm.nih.com/pubmed/3584477](http://www.ncbi.nlm.nih.com/pubmed/3584477).
2. **Thompson G, McClemenS, and DaenincP (Jan 2006):** Generated a conceptual model of the nursing behavior and social process inherent in the provision of quality end of life care from [www.ncbi.nlm.nih.com/pubmed/194761](http://www.ncbi.nlm.nih.com/pubmed/194761).
3. **Lima SG, Macedo LA, VidalMde (Dec 2009):** Study is conducted on permanent education in BLS and ALS impact on knowledge of nursing professionals from [www.ncbi.nlm.nih.com/pubmed/3584477](http://www.ncbi.nlm.nih.com/pubmed/3584477).
4. **Cash S, Shinnick-Page A (Oct 2010):** Conducted a study on basic life support and children with profound and multiple learning disabilities from [www.ncbi.nlm.nih.gov/pmc/2563951](http://www.ncbi.nlm.nih.gov/pmc/2563951).
5. **Jankouskas TS, Haidet KK, (Dec 2011);** this study is designed with adequate statically power to detect relevant training effects, investigators evaluated crisis resource management (CRM) training during a simulated patient crisis from [www.ncbi.nlm.nih.com/pubmed/194761](http://www.ncbi.nlm.nih.com/pubmed/194761).
6. **Saunders,** "Manual of Nursing Care", Medical Surgical Nursing, Edition 7<sup>th</sup> published by Sunder, Luckmanjoan (page no. 1082).
7. **Black,** "Introduction to Medical Surgical Nursing, 4<sup>th</sup> Edition Published by Elsevier (page no. 225).
8. **Pee Vee,** "A text book of Medical Surgical Nursing, 1<sup>st</sup> Edition published by S. Vikas and Company (page no. 769 – 1023).
9. **BT Basvanthappa,** "A text book of Medical Surgical Nursing, 2<sup>nd</sup> Edition published by Jaypee Brother (page no. 605).
10. **Potter Perry,** "A text book of Fundamental of Nursing, 7<sup>th</sup> edition published by Elsevier (page no. 889 – 993).
11. **Brunner &Siddarths,** "A text book of Medical Surgical Nursing, 10<sup>th</sup> Edition published by Suzanne C. SmeltzerBrende G Bare (page no. 810)
12. **First Aid Hand Book** 1995 Edition published by Jones & Bartlett (page no.16 – 29).
13. **First Aid and Emergency care** 1<sup>st</sup> Edition published by Kumar (page no. 37).