

## COMPARISON KNOWLEDGE REGARDING PBLs OF NURSING STUDENTS BY ASSESSING THE PRE-TEST AND POST TEST LEVEL

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### ABSTRACT

This research looked at the impact of a Paediatric Basic Life Support training curriculum on nursing students in Indore, India. Improving nursing students' understanding of paediatric basic life support is the primary goal of this research. The basic idea of CPR, had a mean of 16.75, a median of 17, and a standard deviation of 2.88. The standard deviation, median, and mean for the CPR technique were 3.14, 23, and 22.10, respectively. The median, standard deviation, and mean for post-resuscitation care were 1.28, 5, and 4.5, respectively. With a mean difference of 19.13 points, the average score before analysis was 24.22 and the average score after analysis is 43.35. After analysing the data, we find that the median score was 24, the mean score was 44, and the standard deviation was 4.75 on the post-test, up from 2.71 on the pretest. On 199 degrees of freedom, the computed value of 't' is 48.13 at the 0.05 level of significance, whereas the tabulated value is 1.96 at the same level of significance.

**KEYWORDS:** Knowledge, Comparison, Nursing, Students, Pre-Test and Post Test

### INTRODUCTION

the abrupt stop of breathing and sufficient circulation of blood by the heart, may happen at any moment and in any place, every nurse and doctor should be proficient in cardiopulmonary resuscitation (CPR). Basic cardiac life support and advanced cardiac life support are the two main components of resuscitation measures. Among its many responsibilities, the American Heart Association is heavily engaged in the education of healthcare providers in basic life support (BLS) and advanced cardiac life support (ACLS). Medical professionals caring for patients should have BCLS and ACLS certifications, according to the American Heart Association. The certification process includes taking and passing exams of mental and physical abilities as well as attending courses. In the majority of cases of cardiac arrest, cardiopulmonary resuscitation (CPR) is no longer sufficient to save lives. Supporting the sufferer until more sophisticated aid arrives, it is an essential link in the chain of survival. Quick activation of emergency medical services, cardiopulmonary resuscitation (CPR), defibrillation, and advanced care are the links in the survival chain.

### LITERATURE REVIEW

**Bashir (2013)** This paper's goal is to provide the results of a theoretical investigation on the merits of an organization's training and development programme for employees. After a brief overview of what a training and development programme entails, this article will go on to detail the program's structure and the benefits it offers

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to both individuals and businesses. In today's global market, organisations struggle to maintain their competitive edge. Companies that want to stay ahead of the competition are realising the need of investing in staff development programmes. The success or failure of an organisation is directly related to the performance of its personnel, who are considered a valuable resource. Companies are investing heavily in training and development programmes for their employees as a result. Additionally, businesses might benefit from training programmes that highlight individuals' knowledge, skills, and abilities. The impact of development programmes on both employees and organisations is a hotly debated topic among experts in the field. This research presents the results of a thorough literature review on the topic of employee development programmes and the advantages they provide to both employers and workers.

**ahasneh (2017)** In order to find out how well a training programme that focuses on the development of vocational interests works, this study set out to answer some research questions and test some hypotheses, including that the programme was well-designed and that the vocational interests measure was valid and reliable. Sixty female students in tenth grade from a Ma'an school served as the study's sample. We randomly assigned half of the students to an experimental group that would receive training based on real-world job experience, and the other half served as a control group that would receive theoretical training. Both sets of participants took a vocational interest measure both before and after the intervention. The study found that there was a statistically significant difference in the vocational interests of the experimental group compared to the control group and the experimental group across a range of professions (medical, engineering, social, applied sciences, business, education, office arts, industrial, and military). The results demonstrated that students develop genuine vocational interests through real-world job experience, and the study offered recommendations based on these findings.

**Martin (2013)** Case studies, games-based training, internships, job shadowing, lectures, mentorship and apprenticeship, simulation, role-playing, stimulus-based training, and team-training were among the thirteen training techniques found in the literature review. Using the following seven criteria: learning modality, learning environment, closeness, interaction level, cost considerations, time needs, and trainer presence, we analysed the nature and features of various training techniques and their interactions among themselves. This comprehensive study found that most training techniques are not interactive, do not include doing, and take place outside of the workplace. Technological developments have opened up new distance alternatives for distribution, as anticipated. In addition to providing a foundation for further study and improvement, the profiles created for the thirteen training techniques that were considered in this study should help practitioners choose the ways that are most suited to their own requirements and situations.

**Gutterman, Alan. (2023).** In order to accomplish the company's aims and objectives, organisational training encompasses a broad variety of planned activities aimed at enhancing employees' knowledge, attitudes, and abilities as they pertain to their jobs. Organisational training has shifted its focus from imparting specific technical abilities to accomplish specific tasks to promoting "learning" and the exchange of information. Successful implementation of learning techniques by the organisational training

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function is dependent on the following critical capabilities: ensuring that learning objectives are in line with business goals; measuring the learning function's overall impact on the business; expanding learning to include vendors, suppliers, and customers; concentrating on competency development for critical jobs; integrating learning with other HR functions like talent management, knowledge management, and performance support; designing and delivering leadership development courses; and finally, integrating learning with other HR functions. When implemented correctly, training and development programmes for employees can bring many benefits to businesses. These include higher morale and job satisfaction, more motivation among workers, more efficient processes leading to financial gains, more openness to new ideas and technology, more innovative strategies and products, lower employee turnover, a better reputation for the company (for example, less chance of illegal or unethical behaviour due to ethics training), and better risk management (for example, less chance of sexual harassment and discrimination due to diversity training). Training and development programmes can be a powerful tool for managers, but only if companies are willing to invest the time and money required and ensure that managers and employees have access to all the resources they need to succeed.

**Jacob (2023)** This study delves into several approaches to staff training at educational institutions, with a particular emphasis on conferences, seminars, workshops, and symposiums. Training, designed to meet the specific requirements of school personnel in order to enhance teaching, administrative duties, and students' general development, is emphasised as a crucial instrument for enhancing institutional performance and acquiring new skills. The need of training for both administrators and teachers is highlighted by the research, which emphasises the interdependence of the two groups for educational performance. This course is designed to help administrators improve their self-assurance, communication abilities, productivity, decision-making, conflict management, and delegating skills. The study highlights the vital importance of non-teaching personnel, who provide essential support services, healthcare, and administration to educational institutions. In the latter section of the article, the significance of training for school administrators, teachers, and non-teaching personnel is emphasised. This training is vital for creating productive and effective educational settings. Beyond staff training, the thorough investigation sheds light on the many facets of instructors' roles in implementing curricula, mentoring students, and embracing contemporary pedagogical practices. Teachers have a crucial role in influencing the generations to come, according to the research, which highlights the need of ongoing professional development to meet the ever-changing demands of today's classrooms.

## RESEARCH METHODOLOGY

It is the step-by-step process of doing the study and applied the theoretical knowledge assessment field of the study is known as research methodology. It is also comparing the theoretical and principal of knowledge of the body of the method.

A study in which the studies in detail are called variables, taking into account the different properties, the study is done by placing these variables in 3 categories, which gives the study a new look. Which are its three forms, independent variable,

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dependent and demographic variable, in which are studied only after looking at them. Variables measure people's qualities, their characteristics as well as things related to any study

An individual small part of the chosen population that helps in analyzing the study is called a sample. The sample for the present study was 200 nursing students studying in selected colleges of nursing at Jaipur.

To carry out this study, Researcher had selected some samples for his study. Researcher using this type of technique is called sampling technique. A sampling technique, non-probability purposeful has been used for this study, which is very beneficial for the study. According to the objective of the study, opinion of the experts related to this study, the statistical analysis related to the study, to check the objectives use the suitable formulas i.e. mean, median, standard deviation (S.D.) and „t” test was used to organize the data received, to do the tabulation, to analyze and to interpret Plan of data analysis

## DATA ANALYSIS

Data analysis and comprehension based on structured knowledge questionnaire and checklist data collection is the topic of this episode. Evaluation of PBLs-related data collected by a structured knowledge questionnaire. The results were then presented in a variety of percentage tables and graphs.

**Table 1 Comparison of the level of knowledge by before and after analysis**

S. NO.	LEVEL OF KNOWLEDGE	PRE-TEST		POST TEST	
		F	%	F	%
1.	Poor (< 50%)	180	90%	00	00%
2.	Average (50 to 75%)	20	10%	38	19%
3.	Good (>75%)	00	00%	162	81%

According to the results, 180 nursing students (or 90%) had inadequate knowledge of PBLs before the test, 20 nursing students (10%) had average knowledge, and 00 nursing students (or 100%) had good knowledge. In contrast, 162 nursing students (or 81% of the total) had excellent knowledge of PBLs after the test.

**Table 2 Area wise pretest knowledge score**

S. NO.	ASPECT OF KNOWLEDGE	MAX. SCORE	MEAN	MEDIAN	STANDARD DEVIATION
1.	General concept of CPR	21	8.98	9	1.72

2.	Question related to procedure of CPR	28	11.68	12	1.60
3.	Question related to post resuscitation care	6	3.57	3	1.13

Nursing students' pre-test awareness ratings for PBLs are summarised in table no. 2 above. There are three sections to the structured knowledge questionnaire. The first section, which dealt with the basic idea of CPR, had a mean of 8.98, a median of 9, and a standard deviation of 1.72. The CPR method had a mean score of 11.68, a median score of 12, and a standard deviation of 1.60. The median, standard deviation, and mean for post-resuscitation care were 3.57, 3, and 1.13, respectively.

**Table 3 Area wise posttest knowledge score**

S. NO.	ASPECT OF KNOWLEDGE	MAX. SCORE	MEAN	MEDIAN	STANDARD DEVIATION
1.	General concept of CPR	21	16.75	17	2.88
2.	Question related to procedure of CPR	28	22.10	23	3.14
3.	Question related to post resuscitation care	6	4.5	5	1.28

Table displays the statistical results of the nursing students' post-intervention Paediatric Basic Life Support ratings. There are three sections to the structured knowledge questionnaire. The first section, which dealt with the basic idea of CPR, had a mean of 16.75, a median of 17, and a standard deviation of 2.88. The standard deviation, median, and mean for the CPR technique were 3.14, 23, and 22.10, respectively. The median, standard deviation, and mean for post-resuscitation care were 1.28, 5, and 4.5, respectively.

The research included 200 aspiring nurses. They were each given 60 questions to answer. The following statistics were derived from the recorded correct answers on both the pre- and post-tests: mean, median, standard deviation, mean difference, and t-test value:

**Table 4 Mean, Median, SD, mean difference and t test Value**

s. no	Aspect Of Knowledge	Pre test			Post test			Mean difference	t - value
		Mean	Median	SD	Mean	Median	SD		

1	Questions related to general concept of CPR	8.98	9	1.72	16.75	17	2.88	7.77	32.36
2	Questions related to procedure of CPR	11.68	12	1.60	22.10	23	3.14	10.42	40.84
3	Question related to post resuscitation care	3.57	3	1.13	4.5	5	1.28	0.93	7.57
Total		24.22	24	2.71	43.35	44	4.75	19.13	48.13

In table 4, we can see the average, median, standard deviation, mean difference, and t-value for each knowledge area before and after the exam. The sub-hypothesis of research hypothesis H1, which concerns the ability to monitor responses, do chest compressions, open airways, and evaluate respiration, is supported by the pretest mean of 11.68 and standard deviation of 1.60. The standard deviation (SD) of the post-test is 3.14 and the mean is 22.10. In order to compare the values in the table, the t-value is 40.84.

With a mean difference of 19.13 points, the average score before analysis was 24.22 and the average score after analysis is 43.35. After analysing the data, we find that the median score was 24, the mean score was 44, and the standard deviation was 4.75 on the post-test, up from 2.71 on the pretest.

On 199 degrees of freedom, the computed value of 't' is 48.13 at the 0.05 level of significance, whereas the tabulated value is 1.96 at the same level of significance.

Since the computed value is higher than the tabular value, we may conclude that the PBLS training course can improve the student's knowledge and abilities. This indicates that the PBLS training curriculum successfully helped the student nurses become more knowledgeable and competent in the subject.

We accept the null hypothesis that the training curriculum will not be beneficial in increasing the knowledge and competence of student nurses about PBLS.

## CONCLUSION

This study's findings indicate that 162 nursing students had excellent knowledge after participating in the training course, compared to 180 students who had inadequate knowledge previously. There are 19.13 standard deviations between the pre- and post-

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analysis means of 24.22 and 43.35, respectively. At a significance level of 0.05, the computed value of "t" is 48.13, but the tabulated value of "t" on 199 degrees of freedom is 1.96.

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