



A Study to Assess the Knowledge Regarding Cardiopulmonary Resuscitation among Secondary Students Studying in Adventist Higher Secondary School, West Jaintia Hills District, Meghalaya

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ABSTRACT:

Cardiopulmonary resuscitation (CPR) is one of the maximum evolving regions of present-day remedy which incorporates a chain of lifesaving movements that enhance the survival costs following cardiac arrest. Every year, a number of persons suffer with an accident or illness, which is severe and can even stop breathing and leads to respiratory arrest and it will even stop the functioning of the heart and leads to cardiac arrest. Survival probabilities lower through 7-10% for each min, if CPR is delayed. The most common type of emergencies with fatal consequences are cardiac arrests and accidents. An immediate cardiopulmonary resuscitation can double the chances of survival. Cardiopulmonary resuscitation (CPR) is one of the maximum evolving regions of present-day remedy which incorporates a chain of lifesaving movements that enhance the survival costs following cardiac arrest. A study is conducted with the objectives to assess the knowledge regarding Cardiopulmonary Resuscitation among the secondary students. A descriptive research design to assess the knowledge regarding Cardiopulmonary Resuscitation among secondary students studying in Adventist Higher Secondary School, West Jaintia Hills District, Meghalaya was conducted among 60 samples. The study concluded that 6 (10%) of students has good knowledge regarding Cardiopulmonary Resuscitation and 50 (83.3%) of students has moderate knowledge regarding Cardiopulmonary Resuscitation 4 17(6.6%) of students has inadequate knowledge regarding Cardiopulmonary Resuscitation.

Keywords: Cardiopulmonary resuscitation, level of knowledge, secondary students, cardiac arrest, survival rates

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1. INTRODUCTION

The coronary heart is referred to as the middle of cardiovascular system. The heart is vitally responsible for everything that gives the body life, from the transportation of oxygen to the function of the immune system. However, the diet that we consume and the amount of activity we choose to take part in affects the overall health of the heart along with many other tissues that make up the cardiovascular system. The coronary heart is a muscular organ approximately the dimensions of a closed fist that features because the body's circulatory pump. It takes in deoxygenated blood through the veins and delivers it to the lungs for oxygenation before pumping it into the various part of the body.¹ Cardiac arrest has a poor survival rate and considered as a major healthcare problem.²⁻⁴

Every year, a number of persons suffer with an accident or illness, which is severe and can even stop breathing and leads to respiratory arrest and it will even stop the functioning of the heart and leads to cardiac arrest. Sudden cardiac arrest is a major cause of death in developed countries. Sudden death occurs when heartbeat and breathing stops. Some of the other common causes of sudden death includes heart attack, drowning, choking, suffocation, trauma, drug reactions, and allergic reactions which requires an emergency treatment known cardiopulmonary resuscitation. Cardio means "of the heart" and pulmonary means "of the lungs". Resuscitation is a clinical phrase that means "to revive" or carry lower back to life. Cardiopulmonary resuscitation (CPR) is one of the maximum evolving regions of present day remedy which incorporates a chain of lifesaving movements that enhance the survival costs following cardiac arrest.⁵ Cardiopulmonary arrest is a sudden cessation of respiration or circulation, excluding patients of chronic diseases and terminal malignancies.⁶ Survival probabilities lower through 7-10% for each min, if CPR is delayed.⁷ The most common type of emergencies with fatal consequences are cardiac arrests and accidents. An immediate cardiopulmonary resuscitation can double the chances of survival.⁸ Out-of-hospital cardiac arrest (OHCA) is a significant public health issue, responsible for approximately 10% of worldwide deaths and 50% of deaths related to cardiovascular conditions.⁹ The survival rates for out-of-hospital cardiac arrest (OHCA) have been consistent at approximately 7.6% for almost thirty years. Key factors that predict survival include the occurrence being noticed by a bystander or emergency medical services (EMS), the administration of bystander CPR, the initial presence of a shockable heart rhythm, and the restoration of spontaneous circulation (ROSC).¹⁰

2. NEED OF THE STUDY

Cardiopulmonary resuscitation is essential for preserving lives when breathing or heartbeat ceases. Efficient and timely CPR can increase survival rates and prevent long-term injuries. In spite of its rarity, CPR training is critical for young people. Learning CPR can help people act quickly and successfully in emergencies. Schools are perfect for teaching lifesaving skills. CPR instruction in schools can prepare students. Integrating comprehensive CPR teaching into Adventist Higher Secondary School's health programs begins with assessing students' knowledge. Recognizing knowledge gaps helps teachers adapt. Teaching kids CPR improves community safety. Students can improve community CPR by training neighbors and family. Emergency preparedness and health education are vital to public health. CPR evaluation and training can help students reach health promotion goals and build resilience. This study helps the administrators assess pupils' CPR skills. Given this, policies and curriculum can include periodic CPR education to ensure students learn the theory and practice the methods. Giving students CPR skills and confidence can save lives. Understanding students' existing knowledge level will assist build effective training programs to teach these vital skills. This study could

save lives, improve community health, and promote emergency preparedness. This study examines Adventist Higher Secondary School secondary students' CPR knowledge to find gaps and suggest instructional improvements. Students will be prepared to handle cardiac emergencies, ensuring the school's and community's safety.

3. AIM OF THE STUDY

A study to assess the knowledge regarding Cardiopulmonary Resuscitation among secondary students studying in Adventist Higher Secondary School, West Jaintia Hills District, Meghalaya.

4. OBJECTIVES

- 1. To assess the knowledge regarding Cardiopulmonary Resuscitation among the secondary students.
- 2. To find out the association between the knowledge regarding CPR with the selected demographic variables.

5. METHODOLOGY

A descriptive research design to assess the knowledge regarding Cardio Pulmonary Resuscitation among secondary students studying in Adventist Higher Secondary School, West Jaintia Hills District, Meghalaya was conducted among 60 samples. The samples were carefully chosen by using Convenient Sampling Technique. The students studying in class IX and X, students who were present at the time of study and who can read and write English were included in the study. Whereas, the students who were studying in class VIII and below and who were not willing to participated were excluded in the study. A structured knowledge questionnaire on cardiopulmonary resuscitation was used to assessed the knowledge of the students regarding Cardiopulmonary resuscitation.

6. RESULT

The study findings shows that 6 (10%) of students has good knowledge regarding Cardiopulmonary Resuscitation and 50 (83.3%) of students has moderate knowledge regarding Cardiopulmonary Resuscitation 4 17(6.6%) of students has inadequate knowledge regarding Cardiopulmonary Resuscitation.

Table 1: Frequency and percentage distribution on knowledge regarding Cardio Pulmonary Resuscitation among the secondary students.

n=60

Knowledge regarding Cardio Pulmonary Resuscitation	Frequency	%	Mean	Standard deviation
Good	6	10	42.53	30.95
Moderate	50	83.3		
Inadequate	4	6.6		

Class							
IX	-	-	30	50	4	6.66	X ² = 11.1 df = 2 p =5.99 S
X	6	10	20	33.33	-	-	
Medium of instruction in School							
English	6	10	48	80	4	6.66	X ² = 0.428 df = 4 p = 9.49 NS
Khasi	-	-	2	3.33	-	-	
Others	-	-	-	-	-	-	
Place of Stay							
Day Scholar	2	3.33	42	70	4	6.66	X ² = 9.66 df = 2 p =5.99 S
Hostel	4	6.66	8	13.3	-	-	
Previous Knowledge on CPR							
Yes	6	10	24	3.33	2	3.33	X ² = 5.81 df = 2 p =5.99 NS
No			26	43.33	2	3.33	

Table 2 represents that the association between the level of knowledge regarding Cardiopulmonary Resuscitation among secondary students with their selected demographic variables was found to be statistically significant at 0.05 level for Gender, class and place of stay.

It shows statistically no significant association with Age, religion, medium of instruction in school and previous level of knowledge in Cardiopulmonary resuscitation at the level of 0.05.

7. DISCUSSION

CPR can save those who are having a heart attack or having problems breathing. High school students should know CPR since they often need to act swiftly at home, school, or in the neighborhood. The purpose of this study is to determine any gaps in the secondary students' knowledge of CPR at Adventist Higher Secondary School in the West Jaintia Hills District of Meghalaya. The findings of the study showed that students' levels of CPR competency vary widely, and many of them do not have a basic understanding of cardiopulmonary resuscitation. This is concerning because under these conditions, rapid and effective cardiac resuscitation is crucial. Many more problems, including the difficulty locating in-person training courses and the lack of certified CPR instruction included into curricula, aggravate the misperception. Classroom education has to incorporate CPR instruction. Given their well-organised courses and large student body, schools are the perfect venues for imparting life-saving skills. The health curriculum at Adventist Higher Secondary School must include CPR teaching to give pupils the skills they need to deal when crisis arises. To boost participants' confidence and competency, CPR training should incorporate both theoretical and practical components. The paper also highlights the benefits of CPR training for children. CPR training programs improve public safety and emergency readiness, which benefits the communities. Students can impact others by sharing information with family and friends.

The CPR knowledge assessment of pupils at Adventist Higher Secondary School demonstrates the necessity for CPR instruction. Thorough training programs that target specific areas of weakness can help students manage cardiac emergencies more efficiently. The project's ability to improve community health and reduce mortality rates is centered on the provision of CPR teaching in secondary schools.

8. CONCLUSION

The study conducted at Adventist Higher Secondary School in the West Jaintia Hills District of Meghalaya provides significant insights into the extent of CPR knowledge and understanding among secondary school students. The results indicated that the pupils have a limited understanding, highlighting the necessity for thorough CPR education to be included in the curriculum. Integrating CPR training into schools is crucial for providing students with the requisite abilities and self-assurance to properly respond in emergency circumstances. The study highlights that schools are an ideal location for teaching these essential skills because of their organized learning environment and ability to systematically reach a wide audience. In order to ensure that students not only gain theoretical understanding of CPR but also have hands-on practice, the school can tackle the highlighted shortcomings through targeted pedagogical activities.

Moreover, providing children with CPR education can exert a substantial impact on community health and preparedness for crises. Proficient students can serve as initial responders in crucial circumstances, perhaps save lives and fostering a culture of safety and adaptability among their communities. Ultimately, this study underscores the imperative to improve CPR instruction among secondary students. Introducing organised CPR training programs at Adventist Higher Secondary School can greatly enhance students' readiness for cardiac crises, therefore guaranteeing enhanced safety and welfare for the school community and beyond.

Conflict of Interest: None declared

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