

Basic Life Support: Dissemination of Information and Competency Development Regarding Emergency First Aid to the Community in Gadingwatu Village

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Abstract

Background: *Basic Life Support* (BLS) or commonly known as emergency first aid (PPGD) is an integrated basic health theory that is intended for the society when facing emergencies wherever and whenever they are. The lack of society awareness about this knowledge can be the reason for the big number of accidents and disasters that cause many fatalities. The amount of urgency of this material to be conveyed to the community triggered the Gadingwatu Village team KKN-BBM Period 66 to design activities in the form of socialization and workshops to disseminate information and develop community skills related to BLS in the form of classical lectures and practice demos presented by a professional medical student from RSUD Dr. Soetomo Surabaya who is a member of an organization named KPLA FK Unair. **Methods:** This activity used the classical lecture method in delivering BLS material, which is a strategy of providing material delivered by someone or several presenters followed by a number of audiences as recipients of material or information and collected in the same location and continued with BLS demonstrations practiced directly by the speaker. **Result and Discussion:** This work program was successfully held on Sunday, 31 July 2022 at the Gadingwatu Village Hall, Menganti District, Gresik Regency with a total of 23 participants, and most of them are from Gadingwatu Village Youth Organization. **Conclusion:** Socialization and workshops related to BLS are needed by the community to improve community understanding and skills about steps in dealing with emergency situations.

Keywords: Emergency First Aid, Information dissemination, Skills Development, Gadingwatu Village

1. Introduction

First aid in emergencies is not yet fully understood by society. In an article by Midani et al. (2019) it is stated that there are still many people who have not been able to apply their BLS steps correctly because the majority of people do not explore knowledge and familiarize themselves with emergency situations and consider that it is unlikely that they will face the condition (Aid, 2022). This needs to be a concern because everyone needs to be equipped with basic knowledge related to first aid in emergency situations to save the lives of others (AlQahtani et al., 2020). Moreover, cases of cardiac arrest, especially in Indonesia, are relatively high. By definition, cardiac arrest can be interpreted as the cessation of cardiac activity that physiologically serves to pump blood throughout the body. 70% of these conditions are affected by anomalies in the heart, such as coronary heart disease, heart failure, or heart hypertrophy. However, it can also be affected by anomalies outside the heart, such as intracranial hemorrhage, pulmonary embolism, or pneumothorax. Cardiac arrest can also lead to death (Patel, 2022).

Based on data published by PERKI (2022), there are around 300,000 cardiac arrest cases annually experienced by individuals over the age of 35 years, of which 80% of the incidents were at home. From an article by the Sudden Cardiac Arrest Foundation (2018) and Perkins et al. (2015), it is stated that the incidence of cardiac arrest events outside the hospital is 347,322 cases with a high mortality rate of cardiac arrest patients. In anticipation of the high mortality rate due to cardiac arrest cases, cardiac compression which is part of emergency relief is needed to maintain patient survival (Darmawan, 2021).

Based on this phenomenon, we need some educational activity that can strengthen the understanding of society in terms of theory and practice related to BLS through socialization and workshops to reduce mortality and disability in the community.

2. Methods

The KKN-BBM group for the 66th period of Gadingwatu Village uses the classical lecture method in delivering BLS material, which is a strategy of providing material delivered by someone or several presenters followed by a number of audiences as recipients of material or information and collected in the same location and continued with BLS demonstrations practiced directly by the speaker.

This activity is intended for all residents of Gadingwatu Village, Menganti District, Gresik Regency. By bringing in a professional medical student from Dr. Soetomo Hospital who is a member of the Aesculap Environmental Assessment Group (KPLA) organization as a resource person, it is hoped that it can be a means for the community to be able to learn together about the importance of having insights related to BLS.

The series of events began with the preparation of activities at the village hall by the Gadingwatu Village KKN team. Each participant who came to participate in this activity was asked to fill out the attendance list and was given a consumption in the form of bread and mineral water by the committee. The core of the event was filled with material presentations and questions and answers about the definitions, components, and mechanisms of implementing BLS. Participants were also given the opportunity to be able to conduct BLS simulations, including how to evaluate the condition of the victim and cardiopulmonary resuscitation (CPR), directly by being exemplified first by the speaker.

3. Results and Discussion

Basic Life Support is one of the integrated and systematic methods used as a first step in saving a person's life after an accident, especially with suspicion of respiratory arrest, airway obstruction, and cardiac arrest. BLS can be applied by everyone, not only medical personnel but also society, who certainly have knowledge about its application (American Red Cross, 2015). According to (Alghamdi, 2021) and (MayoClinic, 2022) one of the components of BLS includes cardiopulmonary resuscitation (CPR) which is effective in reducing the possibility of morbidity and mortality because oxygen-rich blood flow can continue to flow throughout the body, especially the brain, which is the organ that is most easily damaged due to lack of oxygen supply. The rhythm of the heart can also return to normal. This is certainly able to maintain the survival of the victim, especially when waiting for medical assistance from a more competent party to come (Almesned *et. al.*, 2014). With this socialization and workshop on Basic Life Support, it is hoped that the community, especially the Gadingwatu village youth organization, will understand and be more confident in taking action if at any time someone needs help.

The large number of deaths due to cardiac arrest triggered the initiative of members of the Gadingwatu Village KKN-BBM group period 66 to create a work program in the health sector with the topic Basic Life Support. Not only that, this is also done in order to disseminate information to add insight to the public regarding first aid procedures in the emergency department in accordance with established guidelines. The activity was arranged with an initial discussion regarding the concept of the event. The concept of socialization and workshops was chosen because these two methods are considered to be able to strengthen theory as well as people's abilities in dealing with emergency conditions in their surrounding environment. The material to be presented is also

compiled and prioritized in the form of sub-topic points listed along with an invitation letter to the speaker who is a clinical student of FK Unair batch 2018 and comes from an organization in the field of medical assistance and nature lovers. The target of this activity is the Gadingwatu villagers, especially the youth village organization. The invitation was delivered by a group representative to one of the village officials who was authorized to convey information to villagers through a coordination group on the WhatsApp application. The determination of the place and date of implementation of the activity is determined based on the recommendations of the youth organization members and the village secretary which is also an extension of the committee to the village apparatus. The speaker has agreed to be able to attend this event on July 31, 2022 at the Gadingwatu village hall. Equipment needed for BLS practice, such as mannequins, has also been prepared. The committee only needs to provide transportation to pick up and drop off speakers between cities in Surabaya-Gresik. The preparation time for the event lasts for a week. The day before the activity, all members of the KKN group who acted as the committee carried out a final *briefing* to ensure that all the needs for the next day's event were ready, as well as the distribution of tasks during the day of the event was carried out.

On the day of the event, exactly at 08.00 WIB on July 31, 2022, all committees began to prepare and carry out their respective duties in accordance with the predetermined divisions. The speaker was picked up using a private vehicle owned by the committee. Presentation slides are displayed using a projector from the village device's inventory, as well as *microphones* and loudspeakers used to enlarge and clarify the volume of the speaker's voice so that it can be heard by all participants. The participants' tables and chairs are neatly arranged facing the projector screen. Near the entrance of the village hall, tables and chairs have also been prepared for the committee tasked with welcoming participants as well as a place for participants to fill out the attendance list and take consumption. This activity was attended by 25 residents and cadets from local hamlets. There were also several village officials present such as the village secretary and the local hamlet head. The event started at 10.15 WIB, 15 minutes late than the schedule. The delay was caused by an obstacle when picking up the speaker from Surabaya

The presentation begins by introducing the principles and definitions of BLS and its components. According to the CDC (2021), it is said that one of the main components in BLS, namely *Cardiopulmonary Resuscitation* (CPR), is a procedure in the form of compression efforts on the patient's chest given by a helper to restore the work of the heart that stopped due to certain reasons. The participants were also given information regarding the benefits and impacts that can be caused by the correct application of BLS, such as increasing the life chances of patients who may be in a dying state (PMD, 2022). In addition, mechanisms related to first aid, how to refer to health services, and other supporting information are also provided. Things to note when a person encounters another person in an unconscious state is to check his consciousness with the AVPU (Alert, Response to Verbal, Response to Pain, or Unresponsive) method. If the result is *unresponsive*, lay the patient down and open his airway. Make sure that the patient's neck does not move much because it is prone to cervical injury. Then, check his breathing. See if the chest is up and down, listen to the sound of his breathing, and feel the patient's exhalation for approximately 10 seconds. If the patient breathes abnormally, immediately perform chest compressions quickly (100-120x/min) (NHS, 2022).

The activity continued with a BLS demonstration by the speaker and assisted by his assistant. The demonstration was carried out in sequence and completely. Participants are also allowed to practice with direct direction from the speaker. The activity was closed with a question and answer session. Participants are quite

active and many questions are asked by participants. The majority of them are in the form of questions related to the possibilities that can occur when in an emergency



Fig.1. (a) Presentation Session, (b) Demonstration of BLS, (c) Practical Session

4. Conclusion

Socialization activities and workshops related to BLS are needed by the community to improve community understanding and skills about steps in dealing with emergency situations. These kind of programs should be supported by the governments because it has a lot of benefits and bring community and society become more educated and ready to face any emergency situation without any doubt, also it can help someone to survive from accidents.

5. Recommendation

Pre-test and post-test are needed to measure the level of understanding of participants before and after giving the material and assess the success of the event.

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