



DESCRIPTION LEVEL KNOWLEDGE STUDENT ABOUT BASIC LIFE SUPPORT IN SENIOR HIGH SCHOOL MUHAMMADIYAH 1 GRESIK

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Research Report

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ABSTRACT

Introduction: Basic Life Support (BLS) is a series of help First Which done in situation emergency when somebody has experienced vital organ failure that could threaten their life. To some extent problems, circumstances emergency Which experience stop the heart And stop breathing until arrive on service dire emergency need duration Which more short. Besides the range distance traveled, the patient's prognosis is also influenced by the early management when conditions that require basic life support (BLS) are found. Until now, only a few of those with cardiac arrest and respiratory arrest get basic life support measures (BLS) from residents or people who look at location incidents. The purpose of this research is to know a description of the level of knowledge of students about life support elementary school at SMA Muhammadiyah 1 Gresik. **Methods:** Method quantitative with a descriptive approach with a total of 133 respondents. the sampling technique used in the study This is Simple Random sampling, where the sample is taken from the population at random. This research uses a data collection instrument in the form of a questionnaire containing questions about assistance basic living (BLS). **Results:** from this study, it is known that the majority of students own knowledge Enough 71 that is (53.1%), And part small students own knowledge not enough that is 15 (11, 8 %). **Conclusions:** Study This expected can make input For developing knowledge students about help life base through activity extracurricular Cross Red Teenagers and Scouts.

ARTICLE INFO

Received July 29, 2023

Accepted September 25, 2023

Online Oktober 31, 2023

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Keywords:

Basic Life Support, Cross Teen Red, Scout

INTRODUCTION

In several problems, circumstances stop the heart And stop breathing Which needs action to help life base For arrive on service Emergency need duration Which long. Besides the range goes through, The patient's prognosis is also influenced by the initial management when found circumstances That need action help life base (BLS). Until Now, only a Few of the sufferers of cardiac arrest and respiratory arrest get assistance basic living (BLS) from residents or people who look at the location of the occurrence, This is allegedly due to the lack of understanding of residents about how and what Which must do on moment incident (Purwanto et al., 2021).

No exception in the school environment, the incidence of heart failure can occur in individual worker education which has a level of high stress. This is in line with findings (Shimizu et al., 2019), which report that more than the last 10 year approx 5,000 Japanese teachers annually take leave sick because of mental health or stress.

According to the RI Ministry of Health (2020), when the body is stressed, cortisol will increase, and every two-time fold enhancement of cortisol in the body will increase the risk of cardiovascular events by as much as 90%. High blood pressure also appears as a result of hormones, that issued moment stress, and ends increase the risk of disease heart (Azmi et al., 2021).

According to data released by WHO in 2021, deaths from the diseased heart reached number 17,8 million death, or one in three death in the world every year is caused by heart disease, where age group, CHD most commonly occurs in those age group of 35-44 years (1.3%) followed by the age group 45-54 years as much (2.4%), And age 55-64 as many years (3.9%). Age Which explained in these data shows that this age group is vulnerable attacks occurs heart Which No expected (Heidenreich et al., 2022). In America's case happening to stop the heart outside the house, sick most lots attack person mature. Got it 360,000 people every year, the incidence of cardiac arrest



is only 56/100,000 people/year who get help immediately. In Denmark, there is an incidence of 62/per 100,000 people/year, when 3500 people obtain help as soon as possible (Purwanto et al., 2021).

Data from the World Health Organization (WHO) mentions more than 17 million people in the world die from heart and blood vessel diseases accompanied by arrest breath (Heidenreich et al., 2022). Ministry of Health data show that incident numbers disease heart, and vessels blood the more increase from year to year. At least, 15 out of 1000 people, or around 2,784,064 individuals in Indonesia suffer from heart disease. Other data shows a trend of increasing cardiac disease with arrest breath ie 0.5% in 2013 become 1.5% in 2018 (Riskasdas, 2018). Even heart disease is a burden biggest. Based on BPJS Health data in 2020 largest health financing There is on the heart disease a big Rp. 7.7 trillion (BPJS Kesehatan, 2020), Results survey beginning done on teachers in senior high school Muhammadiyah 1 Regency Gresik found that 40 from 50 power educators in senior high school Muhammadiyah 1 Gresik aged 35-40 year Where is age Which prone to experience attack heart.

On the victim stop heart which is accompanied by circumstances stopping breathing is very important to do BLS in the early minutes, this of course can increase patient survival by as much as 4%, and in respiratory patients spontaneous 40% (Mastenbjork & Meloni, 2020). It's very important for society the common people are no exception on student for know and understand related BLS. Because condition emergency can happen on who just, where just, and when just relation with students is in an environment school public will always face to face with emergency victims in the school environment in particular and generally outside the environment of the school (Kusumaningrum, 2021). As well candidates spear team medical in a period which will come, very important for students, and female students to own knowledge and ability to perform initial resuscitation measures on the incidence of cardiac arrest in the community, especially within the school setting (Lontoh et al., 2013).

Based on this description, researchers feel it is important to explore about description level knowledge of students in senior high school Muhammadiyah 1 Gresik about BLS because until now the author has not obtained research data similar in scope senior high school in Gresik in general and in senior high school Muhammadiyah Gresik in specifically. Study this expected can become an evaluation so far where level knowledge student to BLS, and used as a base for

implementation of BLS in a period which will come. As for the objective study, this is to know description level knowledge student senior high school Muhammadiyah 1 Gresik about BLS.

MATERIALS AND METHODS

Design Research, this study uses a descriptive research design, with a type of quantitative research that is used to describe the phenomenon that is currently researched or define Suite attitude, opinion, or behavior That is researched or measured on time, and place certain (Nursalam., 2020). On study used describes the level of knowledge of Basic Life Support (BLS) in high school students Muhammadiyah 1 Gresik.

The research was done in senior high school Muhammadiyah 1 Gresik on month May 2023. Meanwhile population in this study, there were 200 students of SMA Muhammadiyah 1 Gresik person. The sample in this study is part from students senior high school Muhammadiyah 1 Gresik that fulfills inclusion criteria, namely:

1. Willing to be a research respondent.
2. Respondents' Healthy
3. Cooperative

Temporary criteria for the exclusion are:

Respondents who experience disturbance in physique

The sampling technique for determining the sample to be used in this study is accidental sampling. Where the process of taking respondents is to make samples based on a coincidence found by researchers. The research variable is the level of BLS knowledge of SMA Muhammadiyah 1 Gresik students.

Before the data is collected, the researcher explains to the respondent about the research to be carried out, when the respondent agrees, then the researcher provides links to the Google form questionnaire <https://forms.gle/pabDei11AwXmwVARA> to the respondent for know information description level/knowledge student about BLS in senior high school Muhammadiyah 1 Gresik.

The collected data is processed through data processing, to obtain a summary of the data based on existing data groups and obtain the required data. In data processing, there are three stages or processes that are carried out, namely the stages of editing, coding, and tabulating (Abd Nasir, Abdul Muhith, 2011; Nursalam, 2020). The data analysis used in this study is univariate analysis. Analysis univariate is an analysis used to describe or explain the characteristics of the variables in the study. Univariate analysis generally only displays data on the frequency distribution and percentage of each variable. Univariate

analysis depends on the type of data used in the research (Sugiyono., 2013). Data analysis in this study presents data in percentage tables from the results of BLS knowledge.

RESULTS

This research managed to collect 133 respondents who were filled in by senior high school Muhammadiyah 1 Gresik students who had met the inclusion and exclusion criteria. The characteristics of the respondents in this study consisted of age, gender, and class. With supporting data whether students have participated in PMR activities or organizations, get information about emergencies, seek information about emergencies, or get information about knowledge about emergencies.

Table 1. Frequency distribution of the characteristics of the respondents. An overview of the level of knowledge of students about basic life support at SMA Muhammadiyah 1 Gresik in 2023.

Characteristics	Frequency	Percentage	
Class Level	10	53	39,0
	11	50	38,4
	12	30	22,6
Age	15	8	6,1
	16	46	34,6
	17	66	49,5
	18	13	9,8
Type Sex	Man	51	38,3
	Woman	84	63,2
Total	133	100.0	

Table 1 shows that respondent almost half is class 10 namely 53 (39%), and a small portion of class 12, namely 30 (22.6%). Almost part of the respondents who fill in the questionnaire were aged 17 years which is 66 (49.5 %), and part small aged 15 years, namely 8 (6.1%). Most of the respondents are female 84 (63,2 %), and almost half manifold male genital.

Figure 1. Frequency distribution, depicting the level of knowledge of students about basic life support based on information at SMA Muhammadiyah 1 Gresik in 2023.

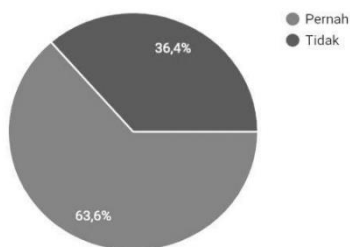


Figure 1. Shows that part big students own once get information about help life base (63,6 %) And Part small never get information (36.4 %).

Figure 2. Frequency Distribution Description of Students' Knowledge Levels about BLS based on Interests In senior high school Muhammadiyah 1 Gresik Year 2023.

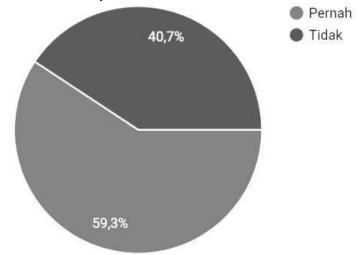


Figure 2 shows that most of the students have ever looked for information about BLS (59.3%), and less than half of the students have never looked for information about BLS (40.7%).

Figure 3. Frequency distribution, depicting the level of knowledge of students about basic life support based on experience at SMA Muhammadiyah 1 Gresik in 2023.

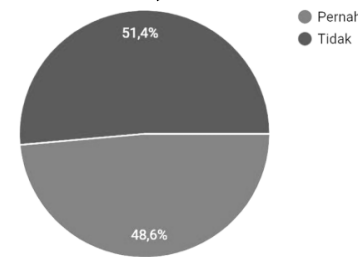


Figure 3 shows that most students have attended PMR activities, namely (51.4%), and almost half had never participated in activities PMR.

Table 2. Distribution Description Level Knowledge Student About BLS based on Gender at Senior High School Muhammadiyah 1 Gresik Year 2023.

Type Sex	Category	Mark	Frequency	Percentage
Man	Good		14	10.5
	Enough		30	22.5
	Not enough		5	3,8
Woman	Good		20	15
	Enough		59	44,4
	Not enough		5	3,8
Total			133	100.0

Table 2 shows that a small proportion of male students get grades Enough which is 30 (22,5 %), women in category mark which enough 59 (44,4 %), and part small students Women get marks not enough. 5 (3,8 %).

Table 3. Distribution Frequency Description Level Knowledge Student About Help Life Base at Senior High School Muhammadiyah 1 Gresik Year 2023.

Knowledge	Frequency	Percentage
Good	47	35,1

Knowledge	Frequency	Percentage
Enough	71	53,1
Not enough	15	11,8
Total	133	100.0

Table 3 shows that most students have sufficient knowledge, namely 71 (53.1%), and a small proportion of students lack knowledge, namely 15 (11.8%).

DISCUSSION

Based on Table 2, the results of this study indicate that the majority of respondents have sufficient knowledge. The results of this study are in accordance with the research that has been conducted on the Wirahusada Medan Health Vocational School Youth Red Cross team in 2019. It was found that the level of knowledge of the Youth Red Cross team at Wirahusada Medan Health Vocational School in 2019 was mostly knowledgeable enough (60%) (Purba, 2020). However, the results study a no by study which has done on public villages in Tatakalai Province Sulawesi Middle found the results show that the level of insight of Tatakalai villagers regarding basic life support with mostly good (66.7%) (Tasaka, 2022). Knowledge is the result of knowing, and this happens after a person does sensing to something object certain (Notoatmodjo, 2022). Sensing happens through the five senses of man, ie senses vision, hearing, smell, taste, and touch. The thing that is meant to know from study This that is students can know all forms of information, and things other which related to helping life base like understanding help life base, understanding cardiopulmonary resuscitation, basic life support goals, basic life support indications, basic life support measures, and implementation of cardiopulmonary resuscitation. It can occur because of differences in the number of respondents, questionnaire questions, and respondents which is not enough to know more Lots just now glance about BLS (Kurniawati et al., 2020).

The factor that affects knowledge that is age, age is the age individuals counted from the start moment born until their birthday. The more mature, the level of maturity and strength of a person will be more ripe in thinking, and work. Age is a matter Which gives influences a person's comprehension and mindset (Darsini et al., 2019). The older you get, the more develop also Power catch And pattern think somebody, so that somebody will the more easy in receiving information.

One of the factors that affect knowledge is gender, women can process information faster where there are differences in response between women and men, because women have verbal

centers in both hemispheres of their brain, while men only have verbal centers in the brain on the left (Amen et al., 2018). Usually, this is what causes women to prefer it discuss, gossip, and tell at length compared to men. Boys prefer seeing things easily, they don't have a good 'connection' about things that involve feelings, emotions, or a shoulder to cry on.

Education is very important as means for getting information for example in the field of health thereby providing a positive influence on a person's quality of life (Darsini et al., 2019). Education influences somebody for the role as well as in development and generally the more high level of education someone will easy in accepting information.

Environmental work can make somebody obtain experience and knowledge, either directly or indirectly. Sometimes work which done by an individual will give a chance which more wide to individual for obtain knowledge or can also activity work which owned rather make individual no capable access something information. Experience is something incident which experienced somebody on period then. In general, the more experience a person has, the more gain knowledge is obtained (Darsini et al., 2019).

One factor which can make it easy for individuals to obtain knowledge that is a method of accessing various source information which there is in various mediums. Technological developments that are happening now, make it easier for somebody to can access almost all the information needed. Somebody who has more source information which more lots will have broader knowledge. In general, the easier it is to obtain information the more fast somebody obtains that knowledge new (Darsini et al., 2019). Interest is the reception will something connection between oneself and something outside oneself. Interest will lead someone to try and start new things so that in the end will gain knowledge which more from previously (Djaali, 2023). Interest makes somebody for try and pursue it so that one gets more knowledge deep.

The environment is all objects, conditions, circumstances, and influences which there is in the room which we occupy and influence matter which life. The environment is a whole condition there is around man and influence which can influence the development, and behavior person or group (Salim, 1979). The environment influences the process of entering knowledge into individuals in that environment. For example, if a region has an attitude guard cleanliness environment, so very possible public surrounding has a guarded attitude toward environmental hygiene.

Judging from the results of the respondents, it is known that the results of this study are in accordance with the theory which has explained that women are easier to receive and capture information because they have verbal centers on both sides of their brains, and in this study it was found that gender influences the reception of information on Muhammadiyah High School 1 Gresik students.

CONCLUSIONS

The data results from a study which has been done on students in senior high school Muhammadiyah 1 Gresik about help life base on June 2023 show that knowledge of students about help life base enough. Recommendation study this expectation can make input on institution education to increase students' knowledge of basic life support through activity youth red cross and scout.

REFERENCES

- Abd. Nasir, Abdul Muhith, I. (2011). *Metodologi Penelitian Kesehatan*, Mulia Medika, Yogyakarta. *Jurnal Doppler Universitas Pahlawan Tuanku Tambusai*, 3(2), 18–21.
- Amen, D. G., Egan, S., Meysami, S., Raji, C. A., & George, N. (2018). Patterns of regional cerebral blood flow as a function of age throughout the lifespan. *Journal of Alzheimer's Disease*, 65(4), 1087–1092.
- Azmi, N. A. S. M., Juliana, N., Azmani, S., Effendy, N. M., Abu, I. F., Teng, N. I. M. F., & Das, S. (2021). Cortisol on circadian rhythm and its effect on cardiovascular system. *International Journal of Environmental Research and Public Health*, 18(2), 1–15. <https://doi.org/10.3390/ijerph18020676>
- BPJS Kesehatan. (2020). *Penyakit Katastropik yang Menelan Biaya Besar BPJS Kesehatan 2019 | Databoks*. 2020. <https://databoks.katadata.co.id/datapublish/2020/08/03/penyakit-katastropik-yang-menelan-biaya-besar-bpjs-kesehatan-2019>
- Darsini, D., Fahrurrozi, F., & Cahyono, E. A. (2019). Pengetahuan; Artikel Review. *Jurnal Keperawatan*, 12(1), 13.
- Djaali, H. (2023). *Psikologi pendidikan*. Bumi Aksara.
- Heidenreich, P. A., Bozkurt, B., Aguilar, D., Allen, L. A., Byun, J. J., Colvin, M. M., Deswal, A., Drazner, M. H., Dunlay, S. M., Evers, L. R., Fang, J. C., Fedson, S. E., Fonarow, G. C., Hayek, S. S., Hernandez, A. F., Khazanie, P., Kittleson, M. M., Lee, C. S., Link, M. S., Yancy, C. W. (2022). 2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. In *Circulation* (Vol. 145, Issue 18). <https://doi.org/10.1161/CIR.0000000000001063>
- Kurniawati, N. D., Laili, N. R., Sukartini, T., Wahyuni, E. D., & Yasmara, D. (2020). Peningkatan Kemampuan Melakukan Pertolongan Pertama Pada Kecelakaan Siswa Smu Melalui Metode Simulasi Dan Role Play. *JURNAL PENGABDIAN MASYARAKAT DALAM KEPERAWATAN*, 2(1), 1–5.
- Kusumaningrum, N. S. D. (2021). *Karya HKI: Modul Pembelajaran BLS (Basic Life Supports)*.
- Lontoh, C., Kiling, M., & Wongkar, D. (2013). Pengaruh pelatihan teori bantuan hidup dasar terhadap pengetahuan resusitasi jantung paru siswa-siswi SMA Negeri 1 Toili. *Jurnal Keperawatan*, 1(1).
- Mastenbjork, M., & Meloni, M. D. S. (2020). *BASIC LIFE SUPPORT (BLS) PROVIDER MANUAL A Comprehensive Guide Covering the Latest Guidelines*.
- Notoatmodjo, S. (2022). *Promosi kesehatan teori dan aplikasi*.
- Nursalam. (2020). *Metodologi Penelitian Ilmu Keperawatan : Pendekatan Teoritis*. Salimba Medika. Yusuf, A. dkk. (2019). *Kesehatan Jiwa Pendekatan Holistik Dalam asuhan Keperawatan* (I). Mitra Wacana Media.
- Purba, D. (2020). Gambaran pengetahuan tim palang merah remaja (pmr) tentang bantuan hidup dasar (bhd) di sekolah smk kesehatan wirahusada Medan tahun 2019. *POLTEKKES KEMENKES MEDAN*. 6.
- Purwanto, E., Pratiwi, I. D., & Setyowati, L. (2021). Knowledge And Skill of The Health Cadres About Basic Life Support. *JCES (Journal of Character Education Society)*, 4(1), 195–201.
- Risikesdas. (2018). Hasil Utama Risikesdas 2018. In *Kementrian Kesehatan RI*. Salim, E. (1979). *Lingkungan hidup dan pembangunan*.
- Sugiyono, D. (2013). *Metode penelitian pendidikan pendekatan kuantitatif, kualitatif dan R&D*.
- Tasaka, A. M. R. H. (2022). *Gambaran Tingkat Pengetahuan Masyarakat Tentang Bantuan Hidup Dasar (Bhd) Didesa Tatakalai*. In <https://Medium.Com/>.