
LEVEL OF KNOWLEDGE OF BOARDING SCHOOL STUDENTS IN FIRST AID MANAGEMENT OF SYNCOPE

Rahmalia Amni*, Fikriyanti, Aklima

Faculty of Nursing, Universitas Syiah Kuala, Jl. Teuku Nyak Arief No.441, Kopelma Darussalam,
Banda Aceh, Aceh 23111, Indonesia

*rahmalia.amni@usk.ac.id

ABSTRACT

Syncope is a condition that requires proper and fast first aid. Boarding school students stay twenty-four hours in a dormitory and students often experience syncope for various causes, so boarding school students need independent first aid skills for syncope. Objective: This study aimed to identify the level of knowledge of boarding school students in providing first aid for syncope cases. Method: This research uses quantitative research methods with a cross-sectional descriptive design. The sampling technique in this research was total sampling, with a sample size of 110 respondents. Data collection used a modified questionnaire, and the validity has been tested at $r > 0.1857$ and the Cronbach alpha value is 0.89. Data analysis was conducted descriptively using a computerized program. Results: Comprehensive research shows that 10.9% of boarding school students have high knowledge of first aid in cases of syncope, 71.8% have medium knowledge, and 17.3% have low knowledge. Conclusions: This research shows that the majority of boarding school students' knowledge level in first aid for syncope cases is still in the sufficient and poor categories.

Keywords: boarding school; first aid; knowledge; student; syncope

INTRODUCTION

Syncope is defined as a transient loss of consciousness due to global cerebral hypoperfusion, characterized by short duration, sudden onset, and spontaneous and complete recovery of the individual's condition (Sukanto, 2018). Syncope is one of the most common causes of decreased consciousness found in the Emergency Unit (ER). There are several things that trigger syncope, namely pain (12.77%), smell (10.64%), fear (8.51%), and seeing blood (4.26%) (Khalidkar, Yadav & Jagiasi, 2013). According to the World Health Organization, syncope occurs in an estimated 12 million cases per year worldwide and can cause respiratory arrest, cardiac arrest and even death. (Hu, Liu, Chen, & Wang, 2021). According to the Ministry of Health of the Republic of Indonesia, as many as 35% of students in Indonesia experience syncope during school activities, while in East Java Province, 9% of students in schools and in cities have experienced syncope. Data from 2017 shows that around 10% of students experienced syncope while taking part in activities such as the national flag raising ceremony at school (Nuari & Linda Ishariani, 2023). Syncope can also be caused by fatigue due to being under the hot sun for too long, resulting in mild symptoms in the form of dizzy eyes, dizziness and shortness of breath (Sitorus, Girsang, Zuliawati, & Nasution, 2020). Patients with syncope have a variable prognosis, ranging from low to high mortality, depending on age, sex, and cause. Patients who have experienced syncope will most likely also experience a recurrence, but this depends on the underlying cause (Febrina, Semiarty, & Abdiana, 2017).

Treatment for syncope patients needs to be carried out to prevent further injury to the patient. One treatment that can be done is to apply first aid to syncope patients. First aid is the first form of effort carried out by rescuers towards individuals who need medical assistance. The medical assistance provided is in the form of basic assistance that can be carried out by trained members of the public (Sitorus et al., 2020). Forms of first aid that can be done include lying the patient in the shade, positioning the head lower than the feet, loosening clothing, providing smells, and other treatments (Nurhasanah &

Sanoso, 2022; Kemenkes 2020). Further research is needed to determine the level of knowledge of boarding school students regarding first aid for syncope patients. Because boarding school students live only in the school and dormitory environment, good knowledge of first aid for syncope patients is required. From research conducted by Friska Ernita et al at SMA Negeri 1 Deli Tua with the title The Effect of Health Education using the Audio Visual method on First Aid Knowledge in Students Experiencing Syncope, it shows that 38 students (58.5%) with good knowledge and 27 students (41.5%) had sufficient knowledge after being given health education on first aid for syncope patients (Sitorus et al., 2020). It is hoped that this research can provide further information about first aid for syncope patients, especially among boarding school students, to minimize the occurrence of further injuries due to syncope that is not treated properly and quickly. This study aimed to identify the level of knowledge of boarding school students in providing first aid for syncope cases.

METHOD

This research uses quantitative research methods with a descriptive design. The sampling technique in this research was total sampling, with a sample size of 110 respondents. Data collection used a modified questionnaire consisting of 8 statements with yes and no answer options. The statements in the questionnaire are divided into 2, namely positive and negative statements. Positive statements are in numbers 1,2,3,5,7,8, while numbers 4 and 6 are negative statements. The questionnaire was tested for validity by an expert in emergency nursing. The results of the questionnaire reliability test using Cronbach alpha obtained a value of 0.89. Data were analyzed univariately using a computerized program.

RESULT AND DISCUSSION

The results of the research can be seen in table 1, 2, and 3 below:

Table 1.

Knowledge Level of Boarding School Students In First Aid for Syncope Handling (n=110)

Mean	Median	Modus	Minimum	Maximum	Standar Deviation
15,27	16,00	16	12	18	1,433

Table 1 shows that the average age of respondents is 15.27 years with a Mode and Median of 16 years, and a minimum age of 12 years and a maximum of 18 years with a Standard Deviation (SD) of 1.433.

Table 2.

Knowledge Level of Boarding School Students In First Aid for Syncope Handling (n=110)

Knowledge Level	f	%
Low (<56%)	19	17,3
Medium (56-75%)	79	71,8
High (>75-100%)	12	10,9

Table 2 shows that the majority of respondents in this study had medium knowledge about first aid for syncope, namely 71.8% or 79 respondents. Some other respondents had low (17.3% or 19 respondents) and high (10.9% or 12 respondents) knowledge.

Tabel 2.

Distribution frequency of Knowledge Level of Boarding School Students in First Aid for Syncope Handling Based on Questionnaire Items

No	Statement	Yes		No	
		f	%	f	%
1	Lay the victim in a shady place and do not crowd around the victim.	106	96.4	4	3.6
2	Position your head lower than your feet (approximately 30 cm).	61	55.5	49	44.5
3	Loosen upper clothing that presses on the neck and ties on the body, such as belts and underwear for women.	87	79.1	23	20.9
4	If the victim vomits, tilt the head to the left, so as not to interfere with breathing.	17	15.5	93	84.5
5	Apply aromatherapy (such as: eucalyptus oil, balm, perfume or wind oil) right under the victim's nose.	81	73.6	29	26.4
6	Warm drinking water or sugar water is given if the victim has fainted and is not yet conscious.	42	38.2	68	61.8
7	Call for help immediately if the patient is unconscious (still unconscious) within 2 minutes.	97	88.2	13	11.8
8	If a patient has been unconscious for more than 2 minutes, the rescuer should lay the patient on his right side and check his pulse (heart rate) and breathing.	92	83.6	18	16.4

The results of research regarding the level of knowledge of boarding school students in first aid for treating syncope showed that the majority of respondents had medium knowledge, namely 79 respondents (71.8%). This shows that the majority of Islamic boarding school students are only able to know and understand some first aid measures for syncope. This is in line with research conducted by Ibrahim & Adam (2021) with the title the level of knowledge of youth Red Cross (PMR) members regarding first aid for injuries is in the moderate or sufficient category, namely (51.1%) (Ibrahim & Adam, 2021). This research is also in line with research conducted by Munawaroh, Pratiwi, & Purwanto, (2017) showing that the majority of respondents had a sufficient or moderate level of knowledge at 52.5%. This can be caused by information received through reading books or just theory without training. In contrast to the research with the title The Relationship between Knowledge of Teenage Red Cross Students and First Aid Actions for Syncope Sufferers at Madrasah Tsanawiyah Negeri 1 Bukittinggi, the results showed that 34 people (72.3%) had knowledge in the good category (Febrina et al., 2017). Other research conducted by Wiranda Mokoagow et al, showed that the knowledge of MAN 1 Kotamobagu students regarding the treatment of syncope was 53 people (65.4%) with good knowledge (Mokoagow, I. V. Watung, & Sibwana, 2020).

A person's knowledge is said to be good in the sense that the knowledge they have is in the category of understanding. Understanding is defined as a person's ability to explain and interpret correctly objects or material that is known (kharisma et al, 2014). To understand information, training is necessary. Training has a big influence on improving skills. Training is a short-term educational process that combines theoretical and practical learning, so training is one of the factors that can increase a person's awareness of knowledge. Skills must have a basis that is acquired in the form of information or in the form of training. So the training process will be easier to learn with initial information (Sitorus et al., 2020). Table 1 shows that the majority of respondents have medium knowledge (71.8%), but some others have less knowledge (17.3%) and a minority (10.3%) have high or good knowledge. However, it can be seen in table 2 that the majority of respondents do not know the question in the fourth sequence, namely "If the victim vomits, tilt the head to the left, so as not to interfere with breathing (negative)" where this will cause worse injuries if not done. Likewise, the sixth question "Warm drinking water or sugar water is given if the victim faints and is not yet conscious (negative)" the majority of respondents do not know about this treatment. This is because the information obtained by respondents is only partial without complete information delivery and is not supported by proper training or there has never been Health Education on how to provide first aid to syncope patients at the School. As found in the initial survey conducted at SD Muhammadiyah Tamantirto Bantul Yogyakarta through interviews, according to the

results of the interview it was found that the assistance given if fainting occurs at school is carried out by teachers by taking students to the teacher's room, loosening clothes, giving scents and after regaining consciousness given sweet tea. The assistance provided was appropriate, but there was some other assistance that was not carried out, such as lying on a flat surface with the feet 30 cm higher than the head, positioning the head and other treatments that had not been carried out (Saputra, 2019). From research conducted by Ngara, (2019), it can be concluded that whether the treatment of syncope patients is good or not is based on whether a person has good knowledge or not. According to researchers, good knowledge greatly influences proper and fast handling. Good knowledge from respondents can be obtained through reading books or teacher delivery. While respondents with poor knowledge are due to respondents not understanding the importance of handling syncope quickly and properly and the risks that can occur if first aid is not carried out. Difficulty accessing the internet for students in Islamic boarding schools is also one of the causes of the lack of respondent knowledge. So that health education or direct training is needed to train student skills and increase knowledge, especially students who live in Islamic boarding schools.

CONCLUSION

This research shows that the majority of boarding school students' knowledge level in first aid for syncope cases is still in the medium and low categories. It is hoped that further researchers can provide interventions to improve adolescents' knowledge in providing first aid in cases of fainting according to the various underlying causes of fainting.

REFERENCES

- Amini, R. Nurhidayah, I., & Amni, R. (2024). Gambaran Kesiapan Melakukan Pertolongan Pertama Korban Kecelakaan Lalu Lintas Pada Mahasiswa. *Jurnal Ilmiah Mahasiswa*. 8 (1).
- Chayang R, & Akbar, Y. (2024). Pengetahuan dan Perilaku Pencegahan Demam Berdarah Dengue (DBD) di Blang Kolak II Takengon. *Jurnal Assyifa: Jurnal Ilmu Kesehatan Lhokseumawe*. 9 (1). 81-86.
- Febrina, V., Semiarty, R., & Abdiana, A. (2017). Hubungan Pengetahuan Siswa Palang Merah Remaja dengan Tindakan Pertolongan Pertama Penderita Sinkop di Madrasah Tsanawiyah Negeri 1 Bukittinggi. *Jurnal Kesehatan Andalas*, 6(2), 435. <https://doi.org/10.25077/jka.v6.i2.p435-439.2017>
- Hu, E., Liu, X., Chen, Q., & Wang, C. (2021). Investigation on the Incidence of Syncope in Children and Adolescents Aged 2–18 Years in Changsha. *Frontiers in Pediatrics*, 9(March), 1–7. <https://doi.org/10.3389/fped.2021.638394>
- Ibrahim, S. A., & Adam, M. (2021). Tingkat Pengetahuan Anggota Palang Merah Remaja (PMR) Tentang Pertolongan Pertama Pada Cedera. *Jambura Nursing Journal*, 3(1), 23–31. <https://doi.org/10.37311/jnj.v3i1.9824>
- Kemendes. (2024). Apa Yang Terjadi Saat Pingsan?. Diakses pada 01 November 2024 melalui https://yankes.kemkes.go.id/view_artikel/3163/apa-yang-terjadi-saat-pingsan
- Khaldikar, Yadav & Jagiasi (2013). Hidayat Nur Romadhona, Are syncopes in sitting and supine position diferent? Body position syncope : A study of III Patient, Indra original article.
- Kharisma et al. (2014). Gambaran Pengetahuan Dan Pelaksanaan Bantuan Hidup Dasar Perawat Gawat Darurat Di Instalasi Gawat Darurat. *Jurnal Ilmiah Kesehatan Diagnosis*, 4(4), 55–61.

- Mokoagow, W., I. V. Watung, G., & Sibwana, S. (2020). Hubungan Pengetahuan Dan Sikap Siswa Dengan Penanganan Pertama Pada Siswa Sinkop Di Kelas IX Man 1 Kotamobagu. *Stikes Graha Medika*, 3, 10–15.
- Munawaroh, S., Pratiwi, I., & Purwanto, E. (n.d.). Gambaran Tingkat Pengetahuan Anggota Palang Merah Remaja (PMR) tentang Tindakan Pertolongan Pertama pada Cedera Siswa. Universitas Muhammadiyah Malang.
- Naura, C. C. Fajri, N., & Amni, R. (2021). Aktivitas Fisik Anak Usia Sekolah Pada Masa Pandemi Covid-19 di Banda Aceh. *Jurnal Ilmiah Mahasiswa*. 5 (4).
- Ngara, P. H., AF, S. M., & ... (2019). Hubungan Tingkat Pengetahuan Dengan Motivasi Guru Dalam Memberikan Pertolongan Pertama Sinkop Pada Siswa Di Sdn 1 *Nursing News: Jurnal*
- Nuari, N. A., & Linda Ishariani. (2023). Syncope Management Simulation Sebagai Upaya Optimalisasi Peran Kader Siswa Pmr Dalam Penanganan Syncope. *Jurnal Pengabdian Ilmu Kesehatan*, 3(1), 96–100. <https://doi.org/10.55606/jpikes.v3i1.1445>
- Nurhasanah, S., & Sasono, A. (2022). Pengenalan Pertolongan Pertama Pada Kecelakaan (untuk Guru SD). Surakarta: CV Pajang Putra Wijaya.
- Putra, F, Akbar, Y, & Wiswari, W. (2022). *Jurnal Assyifa': Jurnal Ilmu Kesehatan Lhokseumawe*. 7 (11).
- Saputra, E. (2019). Pengaruh Pendidikan Kesehatan Terhadap Keterampilan Guru Salam Melakukan Pertolongan Pertama Pada Siswa Yang Mengalami Pingsan (Sinkop) Di Sd Muhammadiyah Tamantirto Bantul Yogyakarta. Program Studi Ilmu Keperawatan Fakultas Kedokteran Dan Ilmu Kesehatan Universitas Muhammadiyah Yogyakarta, 1–23.
- Sitorus, F. E., Girsang, R., Zuliawati, Z., & Nasution, W. (2020). Pengaruh Pendidikan Kesehatan Dengan Metode Audio Visual Terhadap Pengetahuan Pertolongan Pertama Pada Siswa Yang Mengalami Sinkop. *Jurnal Keperawatan Dan Fisioterapi (Jkf)*, 2(2), 147–152. <https://doi.org/10.35451/jkf.v2i2.399>
- Sukamto. (2018). Evaluasi dan Manajemen Sinkop di Instalasi Gawat Darurat. *Cermin Dunia Kedokteran*, 45(11), 860–865.

