

The Influence Of Motivation And Skills Of Pmr Members On The Accuracy Of First Aid In Fainting Cases At Smk Ahmad Yani Gurah

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Abstract

Fainting (syncope) is a common emergency in school environments, especially during ceremonies or physical activities. Youth Red Cross (PMR) members are required to have adequate motivation and skills to provide accurate first aid. Objective: To analyze the influence of motivation and skills on the accuracy of first aid in fainting cases at SMK Ahmad Yani Gurah. Methods: This quantitative research used a descriptive-analytic design with a cross-sectional approach. The research population consisted of all 39 PMR members at SMK Ahmad Yani Gurah, selected using total sampling. Research instruments included a motivation questionnaire and a skill observation sheet based on SOP. Data were analyzed using the Spearman's Rho correlation test. Results: The results showed that the majority of respondents had high motivation (84.6%), good category skills (76.9%), and accurate first aid implementation (84.6%). Statistical test results indicated a significant influence of motivation and skills on the accuracy of first aid ($p\text{-value} = 0.000 < 0.05$) with a very strong correlation coefficient ($r = 0.650$). Conclusion: Strong motivation and well-trained skills significantly increase the accuracy of first aid actions in fainting cases. It is suggested that the school maintain routine simulation exercises to preserve the quality of emergency handling in schools.

Keywords: Motivation, Skills, First Aid, Fainting, Youth Red Cross.

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INTRODUCTION

Motivation is a force, both internal and external, that drives a person to achieve a predetermined goal. Motivation has several indicators: a desire to engage in an activity, a drive (need) to engage in an activity, hopes and aspirations, self-esteem and respect, a positive environment, and engaging activities (Uno, 2023). A person's motivation to carry out an activity is influenced by several factors, including intrinsic and extrinsic factors. Intrinsic factors are factors that originate from within a person, such as gender, physical characteristics, personality traits, and intelligence. Meanwhile, extrinsic factors are factors that originate from outside a person, such as

the environment, education, knowledge, culture, and socio-economics (Uno, 2023). The motivation of PMR members to participate in PMR training activities in providing first aid to victims of fainting is a drive that arises within students to do or carry out something to achieve their desired goals, one of which is physical fitness.

The Youth Red Cross (PMR) is a youth activity in schools or educational institutions within the Red Cross through extracurricular programs. In Indonesia, PMR is managed by the Indonesian Red Cross (PMI) and serves as a forum for students to learn about first aid, health, and humanitarian values such as solidarity and empathy. PMR can also be interpreted as first aid for injuries at school. In the PMR organization, members must have a socially conscious attitude towards others. PMR has contributed to developing students who care about social matters. PMR is the most important program to educate the younger generation about the importance of humanity in the modern era. PMR in schools aims to teach first aid to students who are at school who suddenly feel dizzy and faint.

Fainting, or syncope, is a clinical problem that occurs in the community. Fainting (syncope) usually occurs due to a sign or serious illness. Fainting occurs in hot environments or direct sunlight, prolonged standing, and fatigue (Rahmadani, A., 2023). Fainting can also be associated with disorders of the central nervous system, heart problems such as arrhythmia. Sudden and temporary loss of consciousness, known as syncope, is caused by a lack of blood and oxygen supply to the brain (Chairani, Nadini, 2024). The brain is highly dependent on oxygen for its functions. A lack of oxygen is generally characterized by weakness, dizziness, and cyanosis. Fainting incidents in students are caused by the ceremony being held in an open area and exposed to direct sunlight. Furthermore, the ceremony also requires students to stand for a long time. Fainting cases are usually handled by trained members of the Youth Red Cross (PMR).

Improving the skills of PMR members in handling fainting is crucial to minimize the risk of secondary injury, accelerate the victim's recovery, and save a life. Skills in handling fainting include basic knowledge of steps such as laying the victim down

with their feet higher than their head (the Trendelenburg position), checking for breathing and pulse, and calling for medical assistance if necessary. PMR members in schools, in particular, have this ability to provide primary responsibility for saving lives and minimizing risks in the school environment. The ability and skills of first aid providers in providing first aid to fainting victims are crucial for the success and effectiveness of the quality of care provided quickly and accurately.

According to WHO 2023 data, fainting cases contribute to 10-15% of health incidents in the school environment. Based on (Susianti et al., 2024) the results of the study showed that the factors of fatigue, not eating breakfast and standing for too long had a p value = 0.000. Meanwhile, the OR value obtained was the fatigue factor having a risk of 0.037 times, not eating breakfast had a risk of 0.014 times and standing for too long had a risk of 0.013 times experiencing fainting. In Indonesia in 2020, as many as 37% of students had experienced fainting (Ministry of Health of the Republic of Indonesia, 2020). In East Java, the prevalence of fainting in adolescents was 9% of 13,911 cases.

Based on (Ria Anggraini, Lasman, 2024) the results of the research conducted by the researcher with the topic of Overview of First Aid Attitudes for Fainting Victims among PMR Members at SMKN 2 Boyolangu Tulungagung showed that of the 23 respondents, the majority of respondents, namely 15 respondents (65.2%) had a positive attitude and 8 respondents (34.8%) had a negative attitude regarding first aid for fainting victims.

Factors that often cause fainting in students include standing for too long during ceremonies or school activities in hot and stuffy places, skipping breakfast or meals, which can cause blood sugar to drop, and not drinking enough fluids, which can lead to dehydration and low blood pressure. Furthermore, fatigue due to lack of sleep and intense activity can disrupt the body's fluid and electrolyte balance, triggering disruption of the autonomic nervous system, resulting in a sudden drop in blood pressure (vasovagal syncope). This drastically reduces the oxygen supply to the brain, leading to temporary loss of consciousness (Dinkes, 2025). Dehydration causes

fainting primarily through decreased blood volume, which reduces blood flow to the brain. When the body loses a lot of fluid (for example, through sweating, vomiting, diarrhea, or not drinking enough fluids), blood plasma volume drops, blood pressure also decreases, and perfusion to the brain is reduced, causing symptoms such as dizziness, lightheadedness, and even loss of consciousness (Christovel Ramot, 2024).

Low blood sugar (hypoglycemia) can also cause fainting because the brain relies heavily on glucose as its primary energy source. Low blood glucose triggers a response of decreased insulin secretion and increased glucagon and adrenaline hormones to raise blood sugar levels, leading to initial symptoms such as palpitations, trembling, sweating, hunger, and restlessness. If hypoglycemia persists, neurons in the cerebral cortex and other brain structures experience metabolic dysfunction (impaired synaptic transmission and action potentials), leading to confusion, visual disturbances, seizures, and eventual fainting (Ramanda, 2023). Fainting is common in schools, with the most common occurrence occurring during flag ceremonies.

This phenomenon still involves several errors in providing first aid to victims who have fainted (Prahmawati, 2021). If a PMR member is not responsive, quick, and appropriate in providing treatment when fainting occurs, it can be dangerous for the victim, such as respiratory arrest, cardiac arrest, or sudden death. This can occur due to a lack of knowledge/understanding and skills, resulting in the PMR member's ability/skills in providing first aid not being in accordance with procedures/guidelines. Inappropriate abilities/skills will cause the rescuer to have maladaptive abilities, resulting in the quality of first aid provided being inadequate and inappropriate, and this will result in the victim not receiving good quality first aid (Hasibuan, 2022). A person's abilities are a manifestation of their knowledge and skills. Someone with good knowledge and skills will tend to have good abilities.

An alternative solution to increase the motivation and activeness (ability/skills) of PMR members in handling fainting is by providing more frequent knowledge and training on first aid handling for fainting held in schools and outside of schools (during joint training at PMI). Based on the First Aid Guidelines for Fainting Victims,

it was found that one form of first aid that PMR members can do when finding a victim who has fainted is by evacuating the victim to a safer place, providing good oxygen access by loosening the victim's clothes, providing a Trendelenburg position and giving the victim fragrances to stimulate the victim to quickly regain consciousness, in addition to that, to fainting victims, avoid giving sweet tea or food when the victim is not yet fully conscious, and avoid crowds because it can reduce the oxygen supply for clients. It is hoped that as health workers to provide more frequent education in schools regarding first aid for fainting victims.

Based on the background above, the researcher is interested in taking the title The Influence of Motivation and Skills of PMR Members on the Accuracy of First Aid for Fainting at SMK Ahmad Yani Gurah.

RESEARCH OBJECTIVE

To analyze the influence of motivation and skills on the accuracy of first aid in cases of fainting at SMK Ahmad Yani Gurah

METHOD

Design: Descriptive Analytical with a Cross-Sectional approach with population & Sample: 39 PMR members of SMK Ahmad Yani Gurah (Total Sampling). Variables: Independent (Motivation & Skills), Dependent (Accuracy of Assistance), using Data Analysis: Spearman's Rho Correlation Test using SPSS.

RESULTS

From the research results, data was obtained as below.

Table 1.
Characteristics of Respondents (Students who are members of PMR) Based on Age, Gender, Class

Characteristics	Amount	Persentase (%)
Student age :		
15 year	6	15
16 year	15	39
17 year	18	46
Gender :		
Male	10	26
Female	29	74
Class :		
10	6	15
11	15	39
12	18	46

From the table above, it shows that almost half of the respondents are aged 17 years, as many as 18 respondents (46%) and a small portion of respondents are aged 15 years, as many as 6 respondents (15%), the gender of the majority of female respondents is 29 respondents (74%) and almost half of male respondents is 10 respondents (26%), almost half of the respondents are in grade 12, as many as 18 respondents (46%) and a small portion of respondents are in grade 10, as many as 6 respondents (15%).

Table 2
Motivation of PMR Members to Provide First Aid for Fainting at SMK Ahmad Yani
Gurah on March 27 – April 30, 2025

No	Motivation	Frekuensi (F)	Presentase (%)
1	Strong motivation	33 Respondent	84,6
2	Moderate motivation	6 Respondent	15,4
	Amount	39 Respondent	100

From the table above, it shows that the majority of respondents have strong motivation, 33 respondents (84,6%), and a small proportion of respondents have moderate motivation, 6 respondents (15,4%).

Table 3

PMR Members' Skills in Providing First Aid for Fainting at SMK Ahmad Yani Gurah
from March 27 to April 30, 2025

No	Skills	Frekuensi (F)	Presentase (%)
1	Good	30 Respondent	76,9
2	Enough	6 Respondent	15,4
3	Less	3 Respondent	7,7
	Amount	39 Respondent	100

The table above shows that almost all respondents have good skills, with 30 respondents (76.9%), a small portion of respondents have adequate skills, with 6 respondents (15.4%), and poor skills, with 3 respondents (7.7%).

Table 4

Cross-tabulation Analysis in a Cross-Sectional Design of The Influence of Motivation and Skills of PMR Members Toward the Accuracy of First Aid for Fainting at SMK Ahmad Yani Gurah from March 27 – April 30, 2025

Motivation	Skills	Accuracy: Accurate	Accuracy: Not Accurate	Total
Tinggi (33)	Good (30)	30	0	30
	Enough (3)	3	0	3
Currently (6)	Enough (3)	0	3	3
	Less (3)	0	3	3
Total		33	6	39

The table above shows a very strong positive correlation. All respondents with High Motivation (33 respondents) provided aid accurately. Conversely, those with Moderate Motivation (6 people) all fell into the Inaccurate category. This indicates that internal drive (motivation) is directly proportional to the success of practice. Good Skills were possessed by 30 respondents who provided aid accurately, Adequate Skills

were evenly divided, with 3 respondents still able to perform accurately, but the other 3 were inaccurate, and Poor Skills were possessed by 3 respondents who provided aid inaccurately. In this cross-sectional design at SMK Ahmad Yani Gurah, it can be concluded that: the majority of PMR members have high motivation and good skills, resulting in accurate aid (33 out of 39 respondents). For the inaccuracy of assistance (6 respondents), it consistently appeared among those who only had 'Moderate' motivation and skills at the 'Sufficient' or 'Low' level.

Table 5

Results of SPSS Correlation Statistical Analysis of the Effect of Motivation and Skills of PMR Members on the Accuracy of First Aid for Fainting at SMK Ahmad Yani Gurah from March 27 to April 30, 2025

			Correlations		
			Motivasi	Keterampilan	Ketepatan
Spearman's rho	Motivasi	Correlation Coefficient	1.000	.650**	.650**
		Sig. (2-tailed)	.	.000	.000
		N	39	39	39
	Keterampilan	Correlation Coefficient	.650**	1.000	1.000**
		Sig. (2-tailed)	.000	.	.
		N	39	39	39
	Ketepatan	Correlation Coefficient	.650**	1.000**	1.000
		Sig. (2-tailed)	.000	.	.
		N	39	39	39

** . Correlation is significant at the 0.01 level (2-tailed).

The sig (2-tailed) value obtained is $0.000 < 0.05$, so it can be concluded that there is a significant simultaneous influence between Motivation and the Skills of PMR Members on the Accuracy of First Aid for Fainting at SMK Ahmad Yani Gurah. Where Motivation to Accuracy has an r value = 0.650/ close to 1, which means there is a Very Strong relationship; high motivation (33 respondents) almost always results in high accuracy. Skills to Accuracy has an r value = 0.650/ close to 1, which means there is a Very Strong relationship; good skills (30 respondents) are the main key to ensuring

the actions taken are accurate. It can be concluded that there is a very strong and convincing influence (99% confidence level) between Motivation and the Skills of PMR Members on the Accuracy of First Aid for Fainting at SMK Ahmad Yani Gurah.

DISCUSSION

Analysis of the Motivation Level of Red Cross Youth Members

Based on the research results, the majority of Red Cross Youth members at SMK Ahmad Yani Gurah have high motivation, totaling 33 respondents (84.6%). This indicates that the internal drive to become health volunteers at school is very strong. This high motivation is most likely influenced by a sense of social responsibility and pride in being part of the school's medical team. According to motivation theory, individuals with high motivation tend to pay full attention to procedural details. In the context of providing first aid for fainting, this motivation is what keeps Red Cross Youth members calm and focused when facing actual emergency situations in the field, such as during flag ceremonies.

Analysis of First Aid Skill Levels. A total of 30 respondents (76.9%) had skills in the "Good" category. These psychomotor skills are the result of a routine practice process carried out in the PMR extracurricular activities. Crucial steps such as positioning the legs higher (shock position) and loosening the victim's clothing require muscle memory that can only be developed through repetition or repeated practice. However, there were still 3 respondents (7.7%) with "Poor" skills. This is a note that, although generally good, there are still members who may rarely participate in practice or lack confidence during simulations, causing crucial steps such as checking the victim's response to be overlooked.

The Influence of Motivation on the Accuracy of Assistance. The analysis results show that all respondents with high motivation (33 students) successfully performed actions accurately. This aligns with Aeni's (2021) research, which states that

motivation is a key predictor of success in basic medical procedures. High motivation functions as an internal "quality control." When a student is motivated to help, they will strive to ensure that every step of the SOP, such as ensuring the victim's airway, is carried out flawlessly. In contrast, 6 respondents with "Moderate" motivation showed "Inaccurate" results, indicating that without strong motivation, technical knowledge tends not to be applied optimally.

The Influence of Skills on the Accuracy of Aid. Technical skills have been proven to be a determining factor in the accuracy of actions. From the cross-tabulation results, 30 respondents with "Good" skills achieved 100% accuracy. This supports the theory that first aid is an action-based competence. The inaccuracies observed in 6 respondents (15.4%) were mostly caused by failure to execute the "Shock Position" correctly or critical mistakes such as giving a drink when the victim was not yet fully conscious. This demonstrates that skills are not just about knowing, but about being able to do. Small errors in skill procedures can have fatal consequences (aspiration) for an unconscious victim.

Simultaneous Analysis (Motivation and Skills on Accuracy) Statistically, a Spearman correlation value of 0.650 indicates a Very Strong relationship. This means that motivation and skills cannot be separated. High motivation without good skills will result in actions that are "enthusiastic but wrong." Conversely, high skills without motivation will result in actions that are "mechanical but lacking sensitivity." At Ahmad Yani Vocational High School in Gurah, the combination of these two factors has been well established. The high accuracy rate (84.6%) is concrete evidence that the school's Red Cross Youth training program successfully integrates cognitive, affective (motivation), and psychomotor (skills) aspects. The supportive school environment and guidance from the Red Cross Youth instructors serve as reinforcing variables that strengthen these positive results.

CONCLUSIONS

Based on the results of data analysis and discussion regarding the influence of motivation and skills of Red Cross Youth (PMR) members on the accuracy of first aid in fainting cases at SMK Ahmad Yani Gurah with a total of 39 respondents, the following conclusions can be drawn. Respondents' Motivation: Most PMR members have high motivation (84.6% or 33 respondents). This indicates a strong commitment and a great sense of humanitarian responsibility among students in carrying out their role as helpers in the school environment.

Respondents' Skills: The majority of respondents have good skills (76.9% or 30 respondents). This reflects that the routine training and simulations conducted in the PMR extracurricular activities at SMK Ahmad Yani Gurah have been able to develop psychomotor abilities that meet standard operating procedures. Accuracy of Assistance: Most first aid actions in cases of fainting were performed accurately (84.6% or 33 respondents). This accuracy is greatly influenced by the respondents' adherence to crucial steps such as positioning for shock and checking responsiveness.

Influence Analysis: There is a significant and very strong influence of motivation and skills on the accuracy of first aid for fainting ($p = 0.000$; $r = 0.650$). In other words, the higher the motivation and the better the skills possessed by PMR members, the more accurate the first aid actions provided to the fainting victim. Based on the conclusions above, the researcher conveys several recommendations that are expected to be beneficial for various parties: For the School (SMK Ahmad Yani Gurah) It is hoped that the school can provide more complete facilities and infrastructure to support UKS and PMR, such as the availability of personal protective equipment (gloves), masks, and adequate stretchers so that simulations can be carried out closer to real conditions. Provide appreciation or rewards to active and skilled PMR members to maintain their motivation at a high level, For PMR Advisors It is very necessary to update the materials regularly according to the latest guidelines from the Indonesian Red Cross

(PMI) or other basic life support standards. Training should focus and be routine, not only on theory, but more on Sudden Case Simulation methods to train members' agility and accuracy when facing panic situations.

For PMR Members. PMR members are expected to continue honing both soft skills (calmness and communication) and hard skills (first aid techniques) to prevent small mistakes, such as giving drinks to victims who are not fully conscious, from happening again. Improve teamwork so that the distribution of roles during aid (who secures the location, who checks the pulse, and who seeks help) becomes more organized.

For Future Researchers. Future researchers are expected to investigate other variables that have not been explored in this study, such as "Self-Efficacy" or "Availability of School Health Unit Facilities," which may also affect the accuracy of first aid.

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