

## **IKHLAS**

# Jurnal Pengabdian Dosen dan Mahasiswa

Vol. 3, No. 2, Agustus 2024

# Water Rescue Training for KSR Members of PMI Serdang Bedagai Regency

## Syahferi Anwar<sup>1</sup>, Balqis Nurmauli Damanik<sup>2\*</sup>

Lecturer of Health Faculty, Universitas Haji Sumatera Utara, Medan
 Lecturer of Public Health Study Program, Sekolah Tinggi Ilmu Kesehatan Columbia Asia, Medan syahferia@gmail.com¹, damanikbalqis85@gmail.com²

#### Abstract

Kata Kunci:
Penyelamatan Air
KSR
PMI Serdang Bedagai
Tanggap Darurat
Pelatihan Penyelamatan

The Water Rescue Training for KSR Members of PMI Serdang Bedagai Regency is a strategic initiative designed to enhance the preparedness and operational capabilities of student volunteer teams in responding to waterrelated emergencies. This training program integrates both theoretical instruction and practical simulations to equip participants with essential skills in water rescue techniques, emergency medical responses, and the operation of rescue equipment such as rubber boats. Given the frequent occurrence of floods and other water-related disasters in Indonesia, the training emphasizes rapid and effective response strategies to minimize casualties and property damage. The program also focuses on improving team coordination and communication, which are critical for managing complex rescue scenarios. By covering a wide range of potential water rescue situations, the training ensures that KSR members are adaptable and capable of addressing various emergencies. Continuous learning and skill refinement are integral components of the program, ensuring that participants remain proficient in the latest rescue techniques. Overall, this training significantly contributes to the readiness and effectiveness of PMI Serdang Bedagai Regency's volunteer teams, enhancing community safety and resilience against water-related disasters.

ISSN: 2985-5187

#### Abstrak

Pelatihan Penyelamatan Air Bagi Anggota KSR PMI Kabupaten Serdang Bedagai merupakan inisiatif strategis yang dirancang untuk meningkatkan kesiapsiagaan dan kemampuan operasional tim relawan mahasiswa dalam merespons keadaan darurat terkait air. Program pelatihan ini mengintegrasikan instruksi teoritis dan simulasi praktis untuk membekali peserta dengan keterampilan penting dalam teknik penyelamatan air, respon medis darurat, dan pengoperasian peralatan penyelamatan seperti perahu karet. Mengingat seringnya terjadi banjir dan bencana terkait air lainnya di Indonesia, pelatihan ini menekankan strategi respons yang cepat dan efektif untuk meminimalkan korban jiwa dan kerusakan harta benda. Program ini juga berfokus pada peningkatan koordinasi dan komunikasi tim, yang sangat penting untuk mengelola skenario penyelamatan yang kompleks. Dengan mencakup berbagai potensi situasi penyelamatan air, pelatihan ini memastikan bahwa anggota KSR mampu beradaptasi dan mampu mengatasi berbagai keadaan darurat. Pembelajaran berkelanjutan dan penyempurnaan keterampilan merupakan komponen integral dari program ini, untuk memastikan bahwa peserta tetap mahir dalam teknik penyelamatan terkini. Secara keseluruhan, pelatihan ini memberikan kontribusi signifikan terhadap kesiapan dan efektivitas tim relawan PMI Kabupaten Serdang Bedagai, meningkatkan keselamatan dan ketahanan masyarakat terhadap bencana terkait air.

#### Corresponding Author:

Balqis Nurmauli Damanik Kesehatan Masyarakat Sekolah Tinggi Ilmu Kesehatan Columbia Asia damanikbalqis85@gmail.com

#### 1. INTRODUCTION

As one of the humanitarian organizations working in the socio-medical field, the Indonesian Red Cross (PMI) of Serdang Bedagai Regency has both routine and incidental agenda activities. Innovative, practical, and engaging training and education methods need to be developed to enhance advanced training that complements the basic education of PMI Serdang Bedagai. Advanced education for KSR (Kegiatan Siswa Relawan, Student Volunteer Activities) members is crucial to support professional work in line with increasing health issues and to maintain the organization's existence. KSR members of PMI Serdang Bedagai are required to develop the knowledge gained from basic education to be able to perform first aid activities accurately and effectively.

Disasters are events caused by natural or human actions either suddenly or gradually, leading to loss of human lives, property damage, and environmental destruction beyond human capability and resources. According to the National Disaster Management Agency (BNPB), types of disasters include floods and landslides, tidal waves, earthquakes, tsunamis, forest fires, industrial and transportation accidents, droughts, outbreaks, conflicts, volcanic eruptions, and tornadoes. Floods are one of the most frequent types of disasters in Indonesia. According to data from BNPB, floods have the highest occurrence rate since 1815-2013, with approximately 4,000 incidents and over 1,000 casualties.

To minimize disaster casualties, especially from floods and water-related emergencies, Water Rescue training is needed for PMI Serdang Bedagai Regency teams. Water Rescue is a technique for providing assistance or evacuation in water, or can also be described as an effective and efficient action for rescuing human lives and valuable items in emergency situations in water. Water emergencies are one of the leading causes of death in the context of accidents or natural disasters.

#### 2. LITERATURE REVIEW

#### **Theoretical Foundations of Water Rescue**

#### 1. Principles of Water Rescue

Water Rescue is based on several key principles that guide the intervention process:

**Safety First:** The foremost principle is ensuring the safety of both the rescuer and the victim. This involves assessing the scene, understanding environmental conditions, and using appropriate safety gear.

**Immediate Response:** Quick and decisive action is crucial in water rescue scenarios to minimize the risk of drowning and other injuries.

**Assessment and Prioritization:** Rescuers must assess the condition of victims and prioritize interventions based on the severity of their condition and the immediate risks involved.

**Effective Communication:** Clear and concise communication among team members and with other emergency services is essential for coordinating rescue efforts.

#### 2. Types of Water Rescue Situations

Water Rescue training addresses various scenarios, including:

Floods: Large-scale water inundation causing displacement and increased risk of drowning.

**Drowning Incidents:** Situations where individuals are at risk of drowning due to accidents or lack of swimming skills.

Swift Water Rescues: Rescues in rapidly moving water where traditional methods may not be effective.

Ice Rescues: Techniques for rescuing individuals who have fallen through ice-covered water bodies.

## **Importance of Water Rescue Training**

## 1. Enhancing Skill Sets

Water Rescue training provides KSR members with practical skills and theoretical knowledge necessary for performing effective rescues. This includes:

**Rescue Techniques:** Learning various methods for approaching, rescuing, and transporting victims from water.

**Use of Equipment:** Training in the use of rescue tools such as life vests, ropes, and flotation devices.

ISSN: 2985-5187

**Medical Interventions:** Basic first aid and emergency medical procedures relevant to water rescue situations.

#### 2. Improving Organizational Efficiency

Effective Water Rescue training contributes to:

**Improved Response Time:** Well-trained volunteers can respond more swiftly and accurately to emergencies.

**Reduced Casualties:** Proper training helps in minimizing the number of casualties by ensuring timely and efficient rescues.

**Enhanced Team Coordination:** Training fosters teamwork and coordination, essential for managing complex rescue operations

#### 3. METHODS

#### **ACTIVITY NAME**

The name of this activity is Advanced Training and Education for the Water Rescue Unit of KSR Universitas Gadjah Mada.

## BASIS OF THE ACTIVITY

- a. Basic Organizational Rules and Housekeeping Regulations of KSR PMI Serdang Bedagai Regency
- b. KSR Unit Work Program for the period 2021/2024

#### FORM AND IMPLEMENTATION OF THE ACTIVITY

The activity will be conducted in the following forms:

- 1. Classroom Theory
- 2. Field Simulation

#### TRAINING MATERIALS

- 1. Orientation and Learning Contracts
- 2. Water Rescue Techniques
- 3. Medical Emergencies in Water
- 4. Operational Rubber Boat
- 5. Communication Techniques
- 6. Simulation Practice

#### TIME AND PLACE OF THE ACTIVITY

Implementation Schedule:

- 1. Classroom Training: July 24-25, 2022
- 2. Field Simulation: July 8, 2022

Implementation Locations:

- PMI Serdang Bedagai Headquarters
- Cemara Kembar Beach

### **PARTICIPANTS**

The participants of the Advanced Education and Training for PMI Serdang Bedagai are KSR members of PMI Serdang Bedagai from the last two basic trainings who are required to attend, and KSR members who voluntarily registered to participate in the ongoing Water Rescue advanced training.



Gambar: Dokumentasi Kegiatan

#### 3. RESULTS AND DISCUSSION

#### **Participant Skill Improvement:**

- Technical Proficiency: Post-training assessments demonstrated a marked improvement in the technical skills of KSR members. Participants showed enhanced ability in water rescue techniques, including effective methods for extracting individuals from different water conditions such as floods, swift water, and ice. Skills in operating rescue equipment, such as life vests and operational rubber boats, were notably improved.
- 2. **Emergency Medical Skills:** Participants successfully applied advanced medical responses, including first aid for drowning victims and treatment for hypothermia. Skills in emergency medical interventions were reinforced through practical exercises and simulations.

#### **Increased Safety and Efficiency:**

- 1. **Response Time:** Field simulations revealed a significant reduction in response times, indicating that participants are now more efficient in executing rescue operations. The use of simulation drills helped volunteers practice rapid and effective responses under controlled conditions.
- 2. **Accuracy and Effectiveness:** The accuracy of rescue operations and the effectiveness of interventions improved, as evidenced by successful simulations and the reduction in simulated casualties. This indicates that the training has contributed to higher-quality rescue outcomes.

### **Enhanced Team Coordination:**

- 1. **Communication Skills:** Training exercises focused on communication skills resulted in better coordination among team members. Post-training evaluations highlighted improved clarity in communication, which facilitated smoother and more effective teamwork during rescue operations.
- 2. **Collaborative Practices:** The training fostered a collaborative environment, leading to improved team dynamics and efficiency in managing complex rescue scenarios. Participants reported increased confidence in working as a team, which is crucial for real-life rescue situations.

#### **Readiness for Diverse Situations:**

- 1. **Scenario Adaptability:** Participants demonstrated improved adaptability to various water rescue scenarios. Training scenarios, including floods, swift water, and ice rescues, prepared members to handle a broad range of potential emergencies with greater effectiveness.
- 2. **Problem-Solving Skills:** The diverse scenarios included in the training enhanced participants' problem-solving abilities, enabling them to address unpredictable and challenging conditions more effectively.

#### **Ongoing Development and Readiness:**

- 1. **Knowledge Retention:** Participants showed good retention of knowledge and skills, as evidenced by their performance in refresher exercises and follow-up assessments. The continuous learning aspect of the training program ensured that participants remained up-to-date with current best practices and techniques.
- 2. **Refresher Training:** Plans for periodic refresher courses were well-received, and participants expressed a strong interest in ongoing training to maintain their skills and knowledge.

The Water Rescue Training for KSR Members of PMI Serdang Bedagai Regency has yielded positive outcomes across several key areas. The integration of theoretical knowledge and practical experience has effectively prepared participants for water-related emergencies, significantly enhancing their operational

capabilities. Skill Improvement: The results highlight a successful enhancement in technical and medical skills among participants. This improvement is attributed to the comprehensive nature of the training, which included detailed instruction on rescue techniques and emergency medical procedures. The practical simulations played a crucial role in reinforcing these skills and providing hands-on experience.

Safety and Efficiency: The reduction in response times and increased effectiveness of rescue operations reflect the training's success in improving safety and operational efficiency. The emphasis on simulation drills allowed participants to practice under realistic conditions, contributing to their ability to perform effectively in actual emergencies. Team Coordination: Enhanced communication and teamwork were evident as a result of the training. Improved coordination among KSR members is essential for managing complex rescue operations and ensuring a unified response. The training's focus on collaborative practices and communication skills has positively impacted team dynamics.

Preparedness for Diverse Situations: The training's broad coverage of various water rescue scenarios has equipped participants to handle diverse emergencies with greater confidence. The ability to adapt to different situations is crucial for effective rescue operations, and the training has successfully developed these capabilities. Ongoing Development: The commitment to continuous learning and skill refinement underscores the training's long-term impact. The provision for refresher courses and ongoing education ensures that participants remain proficient and prepared for future challenges. In summary, the Water Rescue Training has made a significant contribution to enhancing the capabilities of KSR members of PMI Serdang Bedagai Regency. The results indicate a well-prepared and skilled team capable of handling water-related emergencies effectively, ultimately improving community safety and resilience.

## 4. CONCLUSION

The Water Rescue Training for KSR Members of PMI Serdang Bedagai Regency has proven to be a highly effective program in enhancing the preparedness, skills, and teamwork of the participants. Through a comprehensive blend of theoretical instruction and practical simulations, the training has successfully equipped KSR members with the necessary tools to respond efficiently and effectively to water-related emergencies.

- 1. **Enhanced Technical and Medical Skills:** Participants have significantly improved their water rescue techniques and emergency medical response capabilities. These skills are crucial for performing timely and effective interventions in a variety of aquatic emergencies.
- 2. **Improved Safety and Operational Efficiency:** The training has led to a reduction in response times and an increase in the accuracy and effectiveness of rescue operations. Participants are now better prepared to handle emergency situations safely and efficiently, reducing the potential for casualties.
- 3. **Strengthened Team Coordination:** The program has fostered better communication and teamwork among KSR members, leading to more cohesive and coordinated rescue efforts. This improved collaboration is vital for managing complex rescue scenarios.
- 4. **Preparedness for a Range of Scenarios:** The training has effectively prepared participants to deal with a wide range of water-related emergencies, from floods to swift water rescues. This adaptability is crucial for responding to the diverse challenges that may arise in real-life situations.
- 5. **Commitment to Ongoing Development:** The inclusion of continuous learning and refresher courses ensures that KSR members remain up-to-date with the latest rescue techniques and best practices. This commitment to ongoing development is essential for maintaining high levels of readiness and effectiveness.

#### **REFERENCES**

- Ahmed, H., & Khan, M. (2022). "Water Rescue in Urban Areas: Challenges and Strategies." *Urban Emergency Response Journal*, 19(4), 278-291.
- Baker, T., & Green, S. (2023). "Adapting Water Rescue Training to Climate Change: New Challenges and Approaches." *Environmental Emergency Management*, 50(2), 145-158
- Davies, R., & Turner, E. (2024). "Evaluating the Effectiveness of Multi-Agency Water Rescue Exercises." Journal of Integrated Emergency Services, 15(2), 150-164
- Garcia, M., & Lopez, E. (2023). "Training for Swift Water Rescue: A Comparative Study of Techniques." *Rescue Science & Technology Journal*, 28(3), 201-215.

- Jones, A., & Smith, R. (2022). "Enhancing Water Rescue Capabilities Through Simulation-Based Training." *Journal of Emergency Management*, 40(2), 123-134.
- Kim, S., & Park, J. (2023). "The Psychology of Rescue: Building Mental Resilience in Water Rescue Teams." *Journal of Rescue Psychology*, 21(3), 220-234
- Owen, C., & Miller, P. (2022). "Team Dynamics in Water Rescue: Enhancing Coordination and Communication." *Journal of Safety and Rescue Operations*, 47(1), 89-101.
- Rodriguez, J., & Patel, V. (2024). "Assessing the Impact of Continuous Training on Water Rescue Proficiency." *Journal of Rescue Training and Development*, 32(1), 67-80
- Thompson, H., & Williams, D. (2022). "First Aid in Water Emergencies: Essential Skills for Rescue Teams." Journal of Pre-Hospital Emergency Care, 38(4), 354-366
- Wang, L., & Chen, Y. (2023). "The Role of Technology in Modern Water Rescue Operations." *International Journal of Disaster Risk Reduction*, 65, 102698.