

POSTER Abstract

JUNIOR AND VOLUNTEER LIFEGUARD – A new concept to help the professional on duty

Principal Author: Dr David Szpilman, MD

Medical Staff of Drowning Resuscitation Center and Aeromedical Helicopter - Fire Department of Rio de Janeiro (CBMERJ) – GMAR; Head of Adult Intensive Care Unit - Hospital Municipal Miguel Couto; Member of Brazilian National Resuscitation Council; Founder, Former President and Medical Director of Brazilian Life Saving Society – SOBRASA; BOD Member and Medical Committee of International Life-Saving Federation; BOD Member of Sports Medical Council;

Abstract

Until 1995, prevention of drowning was restricted to professional lifeguards. With the Brazilian Lifesaving Society (SOBRASA) foundation, by water safety expert firefighters, started the wish of the society to help. In 1996, many young people volunteered themselves to help to prevent drowning. At the beginning it was very difficult to organize a prevention program on drowning without putting them at risk of accident. This paper describes how we managed to do it, decreasing the risk to those who volunteer themselves to help others in danger.

Project: The project “Junior and Volunteer Lifeguard” is 1 year long, February to January, limited to Rio de Janeiro’s beaches. A junior lifeguard is 15 to 20 years old and volunteers are above 21 years. The project does not offer any assistance for payment or meals, but offers a uniform (trunks, t-shirt and hat), a pair of fins and personal and professional assistance. The program was divided in 6 different stages: 1st stage: induction into project; 2nd stage, health certificate for exertion, parents authorization for those below 21 years old (contract signed), complete an initial physical evaluation (table 1) and have a personal health insurance for accidents; 3rd stage, 80 hours course preparatory along 5 weekends from 8AM to 5PM and tests (table 1); 4th stage, if they pass through stage 3, starts an 11 month rookie program, on weekends and holidays, from 9AM to 3 PM, which is a practice training together with professional lifeguard. The training is obligatory to be with another buddy and a professional lifeguard and they are not allowed to do any rescue alone or without the strict orientation of the professional. Each junior and volunteer lifeguard has their own personal log book/form to be completed by their instructor every day. 5th stage, for certification there needs to be completed at least 36 days on duty, graduation above 7.0 in tests and in the instructor evaluation, 70% of participation on SOBRASA prevention events, and if they are students, their final year approval at the school or university. 6th stage, after completion of 12 months, they are classified by achievement in order to have the opportunity to continue for 1 to 2 years more. The first year would be as a lifeguard assistant (need to have completed high school), and the second year as a lifeguard instructor (need to be in University).

Results: Junior and volunteer lifeguard program was conducted for 6 years, from 1996 to 2001. The program enrolled a total of 320 young people among 650 volunteers. The numbers of people interested increased each year, from 35 at the beginning to the last group of 80 persons. Women were 35% of the candidates and this was the first time females were in lifesaving in our country. Rescue reports evaluated during this period and made by volunteers was 18.000. Prevention action at the beach was not reported, but was estimated as a minimum of

3 to 5 times the number of rescues. They also had simple tasks as, find and take care of lost children, give information to beach users, sign post the warning spots, to assist on first aid, and help the professional with rescue and medical reports. Due to the innovative project characteristics, television, radio and news paper media were frequently present, especially for covering women working as a lifeguard. The value of this spontaneous media was estimated at US\$ 224,589.11. Seventeen professional lifeguards from Fire Department of Rio de Janeiro came from this volunteer program.

Discussion/conclusion: The youth project on drowning prevention is very rewarding, although the extent to which is always at question. The junior and volunteer lifeguard program has a unique way of operating among the many youth projects in that area. The motivation to get enrolled is clearly the identification with the hero part of the lifeguard job. At the beginning they have no idea of what responsibilities will come with the volunteer work, but as the program develops, the majority of them fit in very well and establish an excellent commitment with the cause of saving lives. They have the focus and the will to help, not just to preserve the safety on the beach but also during other prevention projects concerning Brazilian Lifesaving Society, which brings a large influence on different levels within the community and mainly beyond their family. The immense participation of spontaneous media, allows many drowning prevention tips to be spread around the State and the country at almost no cost. They save directly and indirectly hundreds of thousands of lives which are priceless. Another innovative concept was to start the idea of women lifeguards beside the men. Some professionals were pleased to work with volunteers, but others were very uncomfortable and afraid to loose their jobs to what they called, a volunteer organization. That was unfortunately the reason the program stopped in 2001. This volunteer group still gets together some times, always look to have fun at water sports and leisure and they will be always lifeguards whenever they are near water, being part of a great chain on drowning prevention and survival.

Three learning objectives

1. Why use youth to increase knowledge through public education and awareness?
2. How to manage the volunteers among professionals?
3. How these yearly programs contribute to reduce drowning?

Principal Author: Dr David Szpilman, MD

Medical Staff of Drowning Resuscitation Center and Aeromedical Helicopter - Fire Department of Rio de Janeiro (CBMERJ) – GMAR; Head of Adult Intensive Care Unit - Hospital Municipal Miguel Couto; Member of Brazilian National Resuscitation Council; Founder, Former President and Medical Director of Brazilian Life Saving Society – SOBRASA; BOD Member and Medical Committee of International Life-Saving Federation; BOD Member of Sports Medical Council;

Av. das Américas 3555, Bloco 2, sala 302. Barra da Tijuca - RJ - Brazil 22631-004

Phones 055 21 99983951

Fone/Fax 055 21 33262378 or 24307168

Email: <david@szpilman.com>

Internet: <www.szpilman.com>

Other Author(s): (name(s) and affiliation(s))

Marcelo Barros - Brazilian Lifesaving Society BOD Member and Phisic Education Teacher.

LEARNING OUTCOME 1: Perform water-based fitness skills in a pool environment as a pre-requirement.

Assessment Criteria/test:

- 1.1 Swim 50m in less than 50 seconds with the head above the water.
- 1.2 Swim 400m in less than 8:00 minutes without using equipment
- 1.3 Run-Swim-Run (Run 200 m, swim 200 m and run 200 m) within 8 minutes

LEARNING OUTCOME 2: Generally knowledge in lifesaving

Assessment Criteria/test:

- 2.1 Knowledge in lifesaving and resuscitation history in Brazil and around the world – 2 questions
- 2.2 Drowning statistics in Brazil and around the world – 2 questions
- 2.3 Knowledge of lifesaving work by Sobrasa and ILS – 2 questions
- 2.4 Describe the 6 chain of survival on drowning – written test

LEARNING OUTCOME 3: Beach Patrol

Assessment Criteria/test:

- 3.1 Describe beach patrol zone – written test
- 3.2 List ways of surveillance – written test
- 3.3 Practice how to work as a team - practical
- 3.4 Ways of communication – workshop

LEARNING OUTCOME 4: How to prevent and recognize a drowning event

Assessment Criteria/test:

- 4.1 List 10 prevention measures on the beach – written test
- 4.2 List 5 prevention measures on the pool – written test
- 4.3 List 5 prevention measures on the rivers and bays – written test
- 4.4 List 10 prevention measures during aquatic sports – written test
- 4.5 List 10 characteristics of a possible victim of drowning on the beach – written test
- 4.6 List 4 characteristics of a victim in drowning event – written test

LEARNING OUTCOME 5: Demonstrate combined rescue with and without equipment in a surf environment in a consciousness victim.

Assessment Criteria/test:

- 5.1 Perform combined rescue technique in the following sequence: Lifesaving entry (wading, porpoising, swim); then perform rescue which is minimum of 100m away from shore (without equipment and with rescue-can, rescue-tube and rescue-board) – physical test.

LEARNING OUTCOME 6: Demonstrate combined rescue with and without equipment in a surf environment in unconsciousness victim.

Assessment Criteria/test:

- 6.1 Perform combined rescue technique in the following sequence: Lifesaving entry (wading, porpoising, swim); then perform rescue which is minimum of 100m away from shore (without equipment and with rescue-can, rescue-tube and rescue-board) – physical test.

LEARNING OUTCOME 7: Demonstrate the skills to perform in-water basic life support

Assessment Criteria/test:

- 7.1 Check breathing and perform a mouth-to-mouth simulation with and without equipment (two lifeguards) – practical evaluation.
- 7.2 Recognize and simulate a rescue in a cervical trauma – practical evaluation.

LEARNING OUTCOME 8: Demonstrate underwater rescue with and without equipment in a pool environment.

Assessment Criteria/test:

- 8.1 Swim 25 m underwater without breaking the surface. While swimming underwater retrieve three (3) objects placed 5m apart, with one (1) in the deepest end of the pool – practical evaluation.
- 8.2 Rescue a underwater mannequin in the surf using equipment - workshop.

LEARNING OUTCOME 9: Demonstrate the skills to perform unusual rescue near the beach

Assessment Criteria/test:

- 9.1 Perform simulated rescue in a cliff or rocky point - workshop
- 9.2 Perform simulated rescue in a pier - workshop
- 9.3 Perform simulated rescue in the night - workshop
- 9.4 Perform simulated rescue in a canal - workshop
- 9.5 Perform simulated rescue in a fall water car accident - workshop

LEARNING OUTCOME 10: Simulate the use of land-based rescue skills.

Assessment Criteria/test:

- 10.1 Perform simulated rescue using a throwing aid to a conscious victim in the water over a minimum distance of 10m - practical evaluation.
- 10.2 Lift conscious patient and transport him over a minimum distance of 25m using a recognised patient transport technique – practical evaluation.
- 10.3 Positioning a victim in a dry place – practical evaluation.
- 10.4 Demonstrate ability to communicate without equipment in a emergency situation – practical evaluation.

LEARNING OUTCOME 11: Perform emergency response techniques including advanced resuscitation and first aid techniques.

Assessment Criteria/test:

- 11.1 Perform patient management techniques including – practical evaluation step-by-step
 - Diagnosis/Check for Dangers, Reaction, Airways, Breathing and Circulation (DRABC)
 - Calling for help
 - Lateral position & patient rollover
- 11.2 Perform advanced resuscitation techniques including – practical evaluation step-by-step
 - EAR (adults, children, infant)
 - CPR (adult, children, infant)
 - One and two-person CPR operation
- 11.3 Identify and perform first aid techniques for managing injury and emergency including – practical evaluation step-by-step

- Patient management
- Identify and managing injuries (i.e. shock, fractures, arterial and venal bleeding, spinal injury etc.)
- Use of appropriate rescue and first aid equipment.

11.4 Identify and perform first aid techniques for managing clinical and thermal emergencies– practical evaluation step-by-step

LEARNING OUTCOME 12: Document medical knowledge about a range of conditions associated with rescues.

Assessment Criteria/test: written test

- 12.1 Describe drowning definition, pathophysiology, phases, secondary accidents,
- 12.2 Describe the application of drowning classification system and treatment
- 12.2 Describe when to begin and when to stop CPR in drowning
- 12.3 Describe injuries and envenomation causing by aquatic life
- 12.4 Describe injuries and treatment in divers
- 12.5 Describe the use of medical equipment in emergency situations.
- 12.6 Identify regulations pertinent to managing emergency medical situations.
- 12.7 Identify and list medical services available for support in an emergency medical situation.

LEARNING OUTCOME 13: Develop and implement strategies to manage emergencies.

Assessment Criteria/test: written test

- 13.1 Identify and select strategies for water rescues and emergencies.
- 13.2 Identify and solve potential problems for putting plans into place.
- 13.3 Design a basic emergency management plan.
- 13.4 Practice emergency management plan.
- 13.5 Review and modify emergency management plan.

LEARNING OUTCOME 14: Identify and describe issues related to the facility/workplace.

Assessment Criteria/test:

- 14.1 Prepare a report on the characteristics of the aquatic location including environmental, geographic and demographic Identify and select strategies for water rescues and emergencies.
- 14.2 List the nearest available safety services.
- 14.3 Find and use potential resources for use in rescue.
- 14.4 Discuss communications and public relations requirements for promoting safety at the location.
- 14.5 Ecology measures to preserve the beaches – list 15 ways

LEARNING OUTCOME 15: Demonstrate the use of a boat and PWC for rescue purposes.

Assessment Criteria/test: workshop

- 15.1 Identify and describe the aspects of a rescue boat and the equipment & procedure used.
- 15.2 Identify and describe the aspects of a PWC and the equipment & procedure used.
- 15.3 Perform a boat rescue according to guidelines endorse by ILS.
- 15.4 Perform a PWC rescue according to guidelines endorse by ILS.

Table 1 – Junior and Volunteer lifeguard program - 80 hours.