

Contents

Chapter 1: RATIONALE AND METHODOLOGICAL FOUNDATION	2
Chapter 2. TRAINING PERSPECTIVE	2
2. 1. Setting.....	2
2.2. Participants.....	3
2.3. Duration	3
Chapter 3. THE FIRST AID TRAINING REFRESHER COURSE	3
3.I. Intended Learning Outcomes:.....	3
3.2. Content.....	3
3.3 Instructional Plan	4
3.4. Learning Strategies	4
Chapter 4. THE UNIT ON FRACTURE	5
Chapter 4. STUDENT ASSESSMENT	8
BIBLIOGRAPY	8
Appendix	9
TUTOR INSTRUCTIONS	9
Appendix A-2	10
STUDENT ASSESSMENT	11
Explanation for the use of Checklist in appendix C-2	12
Appendix c-2	13



First Aid Refresher Course

Nemuel S. Fajutagana, MD, MHPEd
(This is for instructional use only)

Chapter 1: RATIONALE AND METHODOLOGICAL FOUNDATION

Situations requiring emergency assistance are daily realities in most of our urban and rural communities. These situations can vary from simple lacerations, to more life-threatening situations like respiratory and cardiac arrest, severe hemorrhage and shock. In these, the provision of right and timely care can make a difference between survival, partial or complete disability, or even death. The goal of this First Aid training program is to develop local health program implementors (LHPI) that can respond competently and with confidence to situations requiring emergency care. Providing emergency assistance remains to be the major task of LHPIs in their respective communities and since these are high cost performance situations, there is a need to continuously undergo refresher courses (Patrick, 1992). Unfortunately, refresher course did not happen, resulting to loss of some if not most of the learned skills. There are three important factors affecting retention of procedural knowledge and they are: *a) level of learning at end of training; b) retention interval; and c) rehearsal of skills especially during lay-offs* (Patrick, 1992). We have no idea about the levels of learning the LHPIs had at the end of their first Aid training, but we can deduce from the KSA assessment result that it may have been poor. This situation plus long retention interval and absence of rehearsal may have, as I have earlier mentioned, contributed to LHPI's general poor performance during KSA review.

This refresher course hopes to recover lost procedural knowledge, assess and improve on the remaining skills, and introduce new ones. As such, this refresher course will be more of acquisition of practical skills rather than acquisition of knowledge. The theory part will involve only review of the "why's and "how's" of the different first aid procedures and the recall of

contents of previous training programs. To put the course in context and to make it more appealing, cases will be based on the most common emergency problems that have been encountered by LHPIs in their two years of community health work. Among these are bleeding and control of bleeding, shock, burns, fractures, resuscitation/CPR, and transport of the sick and injured.

The skills acquisition will also cover the same topics as the first aid training except that new teaching and learning strategies will be introduced and utilized. Among them are modeling, role-playing and simulations. Emphasis will be given to role-playing/simulations and feedback. Through role-playing and simulations, we hope to approximate real life situations and isolate important skills that need to be mastered. Knowledge of results, which will be made available through feedback, will help learner improve their skills by making them aware of their own performance (Patrick, 1992). Theoretical discussion on the other hand will utilize problem based learning and will have there (3) primary objectives: 1) acquisition of an integrated body of knowledge related to the problem; 2) the (development and application of problem solving, and 3) learning of clinical reasoning skills (Barrows and Tamblyn, 1980).

Chapter 2. TRAINING PERSPECTIVE

2. 1. Setting

One characteristic of a village-based training is the limited supply of good training materials. Models are not available and visual aids maybe limited. The only positive thing is the fact that we can utilize available local materials. In bandaging, for example, one can make use of handkerchiefs and bandannas, and for splinting, old newspapers, wood, and bamboo maybe used. Limited training



context (and resources) would hopefully, challenge trainees to be creative.

2.2. Participants

Local Health Program Implementors and selected community health workers attached to the Diocesan Health Program are the target participants of this training. The participants may be characterized as:

1. Adult learners - most of them are mothers, with age ranging from 30 - 50 years old.
2. Moderate level of education - most of them can read and write with good comprehension and finished elementary or high school.
3. Entry competency - they attended the same training before although it was rather short and loaded and did not provide enough time for acquisition of skills. Some of them were also trained under the government's primary health care program.
4. Committed - these mothers are known for their commitment to work for their village and the church.

Participants' moderate level of educational attainment has been considered in this training. This means more time for practice since extended practice tends to bring benefits in increased consistency of performance (Holding, 1965) especially to those with low level of education.

2.3. Duration

Because participants are mostly mothers who cannot be away for a long from their families, the training will only be for 1 week the most.

Chapter 3. THE FIRST AID TRAINING REFRESHER COURSE

3.1. Intended Learning Outcomes:

At the end of the one-week refresher course, the LHPI shall be able to:

Cognitive

- a) Define First Aid
- b) Discuss 2 major importance of First Aid

- c) Describe the qualities of a good first aid provider
- d) Explain the roles of a first aid provided
- e) Define Bleeding
- f) Explain the complications of bleeding
- g) Define shock
- h) Enumerate 7 symptoms of shock
- i) Discuss the do's and don'ts in shock
- j) Define fractures
- k) Differentiate between a simple and compound fractures
- l) Define Cardio pulmonary resuscitation
- a) Discuss the ABC's of resuscitation

Psychomotor-perceptual

- a) Control bleeding using the application of direct pressure and tourniquet.
- b) Locate brachial, femoral, carotid pulses.
- c) Splint fractured bones.
- d) Immobilize areas with fracture through splinting and bandaging.
- e) Transport properly persons requiring emergency care.
- f) Perform Cardiopulmonary resuscitation.

Affective

- a) Show sensitivity to needs of injured client.
- b) Appreciate the importance of tender care in handling injured persons.
- c) Perform procedures in a relaxed and composed manner.

3.2. Content

The FIRST AID refresher course will be a one-week program divided into five (5) units. Topics in each unit are arranged according to their inter-relatedness.

Unit 1: First Aid

Definition of and its importance
Roles of Emergency Care Provider
Qualities of a good emergency care provider

Unit 2: Bleeding

Definition and Causes
How to control

Unit 3: Shock

Definition and Causes
Table of priorities



- Cardio-pulmonary resuscitation
- Unit 4: Fractures
 - Definition and Classification
 - Immobilization through splinting and bandaging
 - Transporting patient
- Unit 5: Other problems that require emergency care
 - Choking, snake and animal bites

This unit will concentrate on less common but equally important situations that require emergency care. Example of these situations are choking and snake and other animal bites. This will be also an open unit for other areas of interest to the participants.

3.3 Instructional Plan

Unit 1: Review of Definition of First Aid and its importance.

This unit will review the definition of first Aid, its importance and the qualities of a good emergency care provider. This unit will not have a skills part compared to the rest of the units (please see chart 1 - training flow and 3.4 Learning strategies below)

Unit 2: Bleeding and Control of Bleeding.

Bleeding is defined as minimal loss of blood in contrast to hemorrhage, which is dangerous loss of blood. Using PBL, LHPI will discuss bleeding, its complications and possible intervention to stop the bleeding. Basic physiology of blood circulation will also be discussed/reviewed.

Unit 3. Shock.

Shock have different meanings to different people. For this unit, the focus will be on physiologic shock which are usually due to violence or serious injury, heart conditions that affect blood output, and overwhelming infection. Discussion will include symptoms of shock and interventions.

Unit 4. Fractures.

Fracture will be defined as broken bones and that it has 2 types, simple and compound. Intervention will focus on immobilization using splint and bandaging. Creativity in finding resources for immobilization will also be emphasized.

Unit 5. Other Emergencies.

3.4. Learning Strategies

As mentioned earlier, this training is biased towards skills acquisition. Trainees will be provided with all the needed time for practicing skills by themselves, with peers, and with the help of trainers.

Each unit in the course (except that of Unit 1 which will always include the sharing of experiences of LHPIs and CHW s related to provision of first aid) will have three (3) major parts. The first will be the review of theoretical aspect of first aid using a problem based learning approach. The second is practice simulation / role-playing and the third will be giving of feedback on the simulations and the conduct of re-simulations (see figure 1 age 8).

Unit 1: Sharing of experiences. The sharing will focus on emergency situations that the participants have experienced, procedure they used, their feelings while doing the procedure, and what procedures they find difficult to perform. It is sort of incidence reporting and will provide the tutor with information on how learners assess their own performance, competencies, and self-confidence.

For all other Units (2-5)

First Part: Review of theories related to a specific emergency. In this part the participants will be given a hypothetical situation which they will discuss in a group of 4-5 members. The discussion will include diagnosis and plan of action, which they will simulate. The discussion will be facilitated by one training staff.

Second Part: Role Playing and Simulation. The learner will be given time to practice the steps and then simulate the steps in a plenary. Materials



needed for the simulations will be provided by the training staff.

Third Part: Feedback on the simulation. After the performance, learners will be encouraged to give their feedback on the just concluded simulation. The feedback will not only focus on

the skills in doing the different emergency procedures, but also on the attitude of performers vis-a-vis the situation. The training staff will also provide their comments and suggest ways on how to improve performance. If necessary, re-simulation may be conducted.

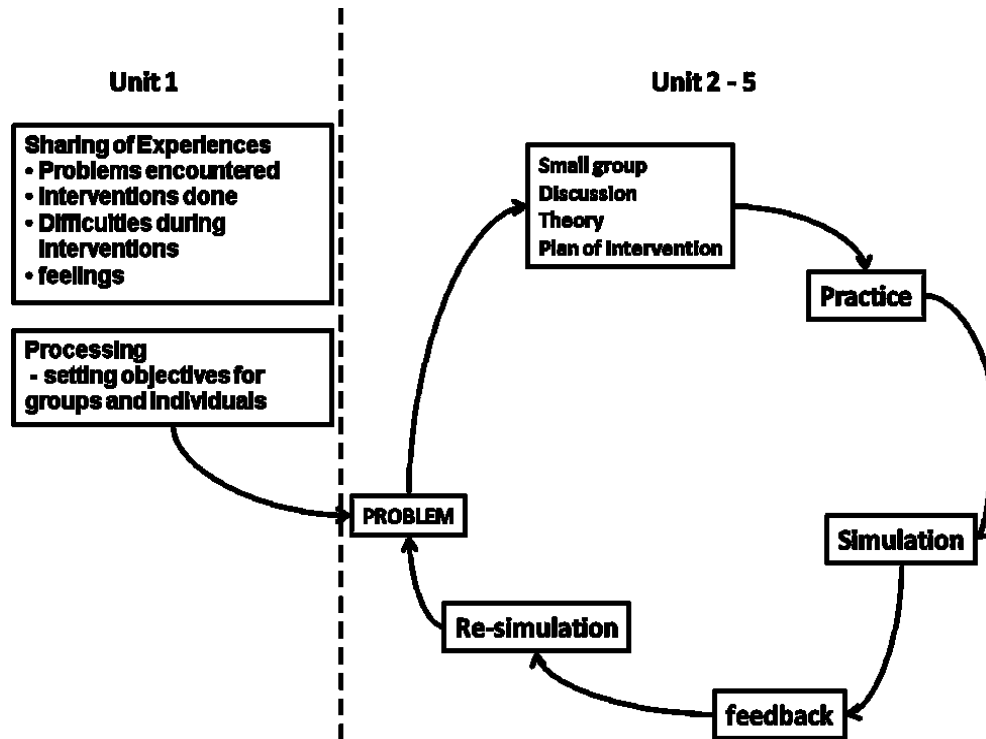


Figure 1. General Training Flow

Chapter 4. THE UNIT ON FRACTURE

Central Questions

- What is fracture?
- What are the causes of fracture?
- What are the two types of fracture and how do they differ?
- What are the causes of fractures?
- What are the complications of fractures?
- Why do you immobilize areas with fractures)?
- How do you immobilize areas with fractures?
- What should you not do in cases of fractures?

Intended Learning Outcome for the Unit on fracture

At the end of 2 days, the participants will be able to:

1. Cognition



- a) Define fracture.
- b) Enumerate four (4) causes of fractures.
- c) Explain the difference between simple and compound fractures.
- d) Explain why compound fracture is more dangerous than simple fractures.
- e) Enumerate and explain the hazards of fractured bones.
- f) Enumerate the general PRIORITIES of treatment.
- g) Discuss the importance of immobilization in fracture.
- h) Enumerate at least six (6) methods of immobilization.
- i) Define Splinting and discuss its importance

2. Psychomotor-perceptual Skills

- a) Perform simple history taking and physical examination of person suspected of having fracture.
- b) Splint fractured bones with care using smooth boards, papers, bamboo or other available local materials.
- c) Fasten splint with bandage using right tightness, snug but not too tight.
- d) Set fracture using the "counter-traction" technique.
- e) Transport a person with spinal injury completely immobilized.

3. Affective

- a) Exhibit sensitivity to the needs of an injured person.
- b) Appreciate the importance of tender care in handling injured person.



Specific Training Session:

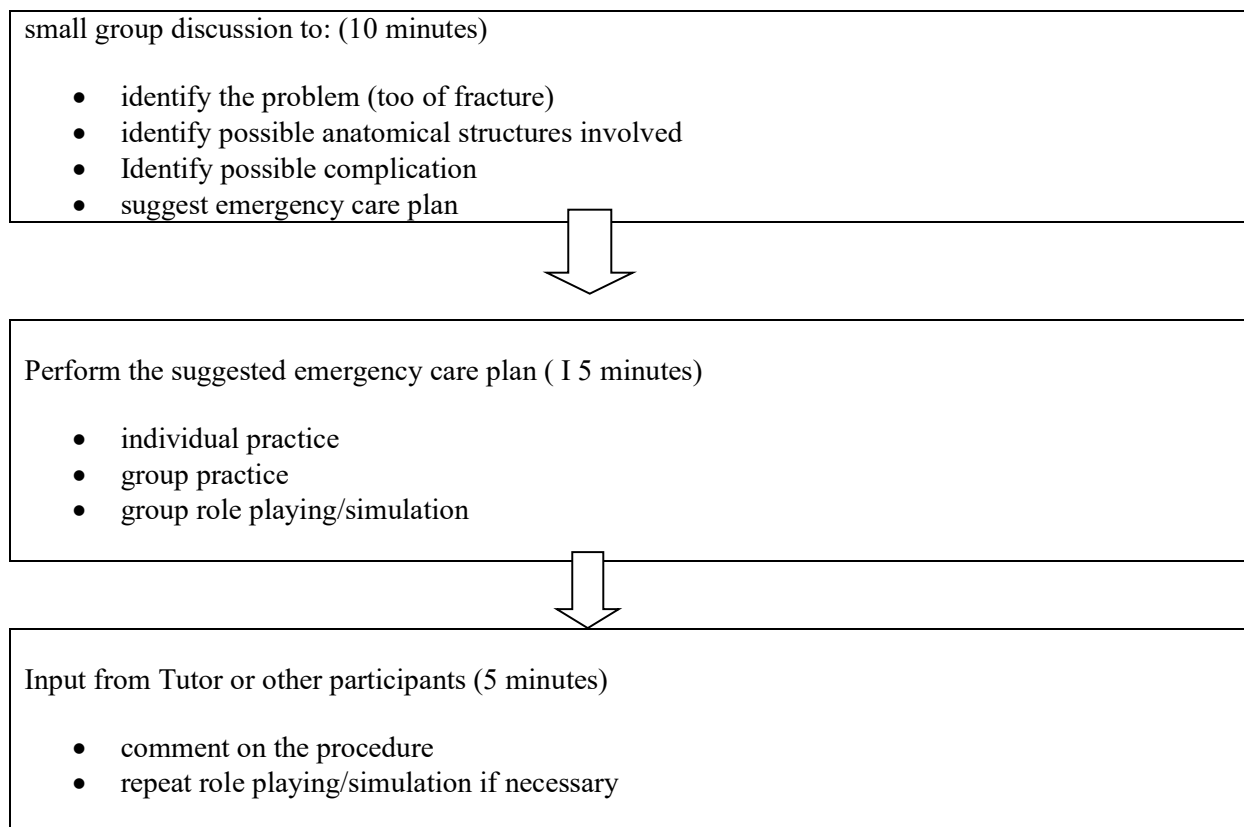
Objectives:

At the end of a 30-minute session, the participants will be able to:

- a) Demonstrate the different methods of applying splints and sling using available resources.
- b) Immobilize fractured bones with care, with the use of appropriate splints and slings.
- c) Demonstrate proper transport of injured patients emphasizing on care and avoiding additional injuries.

The training session will follow the format described below. The time allocation is dependent on the type and problem being discussed.

Presentation of problem:



This format is based on the fact that participants have prior knowledge of first aid, specifically bandaging, splinting and use of sling. This is in the first place just a refresher course.



Chapter 5. STUDENT ASSESSMENT

The assessment of LHPI trainees for this refresher course will have the following objectives:

- Judge mastery of essential skills and knowledge.
 - Diagnose student difficulties.
 - Motivate students to study
- Adapted from Newble and Cannon, 1987.

Student assessment will be purely formative (to guide student in their future study and actual work).

The LHPI's will be assessed during and after each session. The assessment will be both at individual or group level in terms of theoretical exposition of problems, selection of appropriate first procedures, performance of the procedure, and behavior during performance. (Please see appendages for evaluation forms and their instructions).

During Session	Post Session
as groups/as individual - theoretical exposition ' (checklist) - selection of procedure - ordinance of procedure - behavior Through feedback forms	True or false question practical exams

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Appendix

TUTOR INSTRUCTIONS

UNIT 4: Fractures
TOPIC: Immobilization

This session is allotted 30 minutes and will focus on the learning of the following skills:

- Splinting
- Bandaging

Your students are the Local Health Program Implementors of the Diocesan Health Program. They have been part of the program for about two years and they have undergone some training on First Aid.

Materials needed for this session

- manuals
- triangular cloth bandages
- elastic bandages
- splints (wooden or hardboards)
- posters
- Illustrations

As with other units of this training program, this session is divided into three parts. The first Part is the theoretical part of the skills training. The second part will be practice of skills and simulation, and the third is feedback and re-simulation. Lecture is not a major feature of this training sessions and your role therefore will be mostly to facilitate the flow of the sessions and provide expert advice, especially during feedback sessions.

Starting the session

Introduce the session to the students, including the objectives and skills to be performed or practiced. Remind them that as in previous session, PBL will be utilized and it is important that they go back as much as possible to their previous first aid trainings.

Organize the students into groups of 4 - 5. You may want to use their previous groupings or you may ask the students how they want to do it. After they have been organized, distribute problems that they will discuss. Each group must have different problem to handle (see annex for example of problems).

The groups will be tasked to do the following in 15 minutes:

1. Define the problem
2. Possible complications
3. Decide on the first aid procedure they will use and explain why
4. Discuss the things to remember in doing the procedure(s)
5. Materials they will need

If there are several groups and you are alone, I suggest that you go around the groups and make sure that they are doing well in their discussions. After the 15 minutes discussion, ask them to practice and simulate in a plenary session the procedure they decided to use for the problem. Manuals are provided so that they will not have difficulty in recalling procedures they used to know. We have also anticipated the materials they will need and just ask them what they need. You are expected to go around to see



how the groups are doing in their practice session and to also answer some possible questions that may come up. The group will then be asked to simulate their problem and the procedures to the big group.

After the simulation, you will give your feedback. You may focus your feedback on the following:

- Handling of the problem
- Choice of procedure
- Performance of the procedure
 - Taking note of the way they are doing the procedure in terms of practicing caution while doing delicate procedure and how they try to maintain the spirit of the patient high during the crisis.
- Encourage also other trainees to give their feedback.
- If you think there are still lots of room for improvement, then a repeat simulation may be requested.

Appendix A-2

Mang Mario, in preparation for the coming rainy season decided to repair the nipa roofing of his house. While he was on the middle of the bamboo ladder on his way to the roof, the bamboo ladder slipped to the left and eventually fell with him to the ground. In reflex, he extended his left arm hoping to cushion the impact.



STUDENT ASSESSMENT

Simulation Feedback form

Name Group/individual:

Observer:

GENERAL COMMENTS:

HANDLING OF THE PROBLEM:

- Discussion:

- Selection of procedure:

PERFORMANCE OF PROCEDURE:

- Handling of Patient

- Use of splints/bandages

- Behavior during performance



Explanation for the use of Checklist in appendix C-2

On the last day of the training course, an OSCE type of practical examination will be conducted to assess if the objectives laid down for the refresher course have been achieved. A maximum of 10 stations will be utilized, with each station testing one domain learned or reviewed during the refresher course.

Each station will have a simulated patient or a phantom limb or a model (that approximate the scenario where a particular emergency procedure (domain) can be tested) and an observer who will score the performance using a pre-prepared checklist (list of task to be performed). Before the start of the OSCE, remind trainees that each station represents an emergency. They should also be informed that no instructions will be available inside the stations, only simulated patients. Explain that they will be scored according to how they perform the assessment, select and perform the appropriate emergency procedure.

For the session that will test the domain related to emergency procedure for fracture, use the following problem or scenario.

Compound Fracture of the Radius and Ulna of the left Arm.

Simulated Patient:

Will be shown as conscious, in pain, lying in the ground with his right hand holding his injured left forearm. A break in the skin can be noticed, with profuse bleeding but no bone protruding. Skin paint or make up will be used to show the bleeding. A white model repainted with drawing of injury may also be utilized.

As observer

You will score the trainee using the checklist in appendix c-2. To score, just check **done** if a particular task is performed and **not done** if not performed. In the fourth column (#), state as to what order the task was performed. For example, task 5 (immobilization) may be performed before task 4 (control of bleeding). For the column on comment, you can write your observation of the trainee during the performance. You can concentrate on the composure, reassuring attitude and care in handling the patient.



Appendix c-2

STUDENT ASSESSMENT Checklist

Topic/Unit:

Name of LHPI/Trainee:

Name of Observer:

no	TASK	DONE	NOT DONE	Actual sequence	COMMENT
1.	Reassure the agent to reduce his anxiousness				
2.	Get history (from patient if conscious or to witness of the accident)				
3.	Make sure that patient has good breathing				
4.	Control all major bleeding				
5.	Immobilization of patient				
6.	Prepare the splint materials				
7.	Cushion the area for splint with padding				
8.	Apply the splint on both sides of the affected extremity.				
9.	Tie the splints above and below the fracture using bandage				
10.	Check the highness of bandage that fasten the splint. Snug but not too tight				
11.	prepare for transport				

TOTAL

General Comment:

PROBLEM GUIDE

Mang Mario, in preparation for the coming season decided to repair the nipa roofing of his house. While he was on the middle of the bamboo ladder on his way to the roof, the bamboo ladder slipped to the left eventually falling with him to the grounds. In reflex, he extended his left arm to cushion the impact.

(Total of 20 mins.)

Tasks A

1. Discuss the possible type of fracture Mang Mario may sustain?
2. Discuss what possible complication he can get from the injury.
3. Based on your answer to item 1 and 2, discuss the possible intervention, why you decided on it, and what you need to do it.

Task B

Practice the procedure you will be using and then you will be given time to present the procedure to the class in a form of simulation. Take note of all the rules to remember in page 3 and 4 of your manual in performing the simulation.

