

CURRICULUM

TRAINING OF TRAINERS *FOR* DENTAL NURSE

Regional Nursing Training Center
Kampong Cham

ICC International Cooperation for Cambodia
RTC, Kampong Cham

RESOURCE PERSONS:

1. Dr. Kim Born An Director, RTC Kampong Cham
2. Ms. Susanne Medsan ICC Country Manager
3. Dr. Kreg Mallow ICC Dental nurse Project advisor
4. Dr. Murray Dickson Short time advisor
5. Dr. San Nhep: Head of the department. Dental Nurse Training, RTC, Kampong Cham
6. Ms. Marie Klaipo ICC Dental nurse Project consultant

REFERENCES AND RESOURCES:

1. Teaching for better learning WHO 1980 Abbatt FR
2. Educational Handbook for Health Personnel WHO 1987 Guilbert J.J.
3. Where there is no dentist Dr. Murray Dickson
4. Atraumatic Restorative Treatment WHO 1997 Jo Frencken
Prathip Phantumvanit
Taco Pilot
Yupin Songpaison
Evert Van Amerongen
5. Curriculum for Dental nurse Prepared by Teaching staff
Manuals for dental nurse Dental nurse training,
Teachers' Handbook for dental nurse RTC, Kampong Cham
6. Management
1. "Exploring Corporate Strategy G. Johnson & K. Sholes
2. "Organization" J.F. Bakka & E. Fivelssal
3. "Organization psykologi" E. Schein

1. INTRODUCTION

The dental nurse/Primary Oral Health Care Worker (POHCW) plays an increasing important role in delivery of oral health care in Cambodia, They will serve the oral health need of the communities at the periphery where there is no dentist. According to the 2nd National Oral Health Plan (1996 – 2005) in the Ministry of Health August 1996, Dental Nurses should be evenly distributed to cover the entire Rural Health Center. The plan of the MOH is to have 1000-health center in Cambodia. This demand has led to development of well training centers and training of capable trainers for training dental nurse using appropriate pedagogical approach, (teaching/learning material).

International Cooperation for Cambodia (ICC) previously has known as *World Concern* in cooperation with the Minisury has been training dental nurses since 1992.

In 1997 a post-basic training school has successfully established in Kampong Cham Regional Nurse's Training school catering for 50 nurses in each academic year. Thus assist the Ministry of Health in implementing the plan to train dental nurses in each of the country's 1000 rural health centers

Up to date 17 training courses have been carried out and 219 nurses were trained.

ICC has carried out 2 training courses for training for trainers. The 8 trainers are qualified as Dr. Dentist, Assistant Dentist and Dental Nurse. They have experience of teaching from 3 -8 years. They have had continuous education training abroad and within the country on Pedagogy & specialty in Dentistry.

Teaching Manuals for dental nurse and Teachers' Handbook and curriculum in Khmer have been developed.

Also, "The 2nd National Oral Health Plan" recommends establishing a 2nd Dental Nurses' Training school and training of trainers for RTC, Battambang and training or 8 teachers for RTC, Battambang.

These trainers are very important strategy in human resource development for oral health to ensure that the dental nurses are appropriately trained for the oral health services.

2. OVERALL AIM OF THE COURSE

To prepare trainers in appropriate pedagogical approach for training dental nurse (POHCW) for the training schools in RTC Kampong Cham and RTC Battambang.

2.1. SPECIFIC OBJECTIVES OF THE COURSE

The objectives of the training course are to prepare trainers who are able to:

1. Relate dental nurse training with the health Care System in Cambodia, Primary health care, primary oral health care and health promotion.
2. Plan, implement, manage and evaluate competency based training course for Dental Nurses, who will serve the needs of the communities at the periphery level where professional staffs are rarely available. e.g. Rural Health Center (RHC).

3. Appreciate the meaning of “problem solving based learning” and consider its use in curriculum development work in teaching. Develop teaching modules with each module having a goal, learning objectives, learning activities, method and evaluation and lesson planing.
4. Develop teaching aids and oral health posters.
5. Plan and facilitate workshops and seminars for graduate dental nurses.
6. Conduct applied research in relation to oral health.
- 7 Use computer skillfully for simple words processing

3. COURSE DESCRIPTION

The course will be 4.5 months *competency based* training which will be conducted for dentists, Assistant Dentists and dental nurses who will be training Dental nurses (POHCW). The course will be focus on introducing the participants to appropriate educational methodology used especially for training dental nurses.

The course provides experience in the community and clinic setting for trainees to apply concepts from for training dental nurses.

3.1 CRITERIA FOR SELECTION OF CANDIDATES

Qualification

The trainees for trainer must be qualified for the Job. He/she should be

Dr. Dentist, OSD (Preferable for candidates who can speak & read English)
and Dental nurse.

*** 50 % of the candidates should be female

Prerequisite

He/she should be governments’ staff, and have at least one-year experience of work in their respective fields after graduation.

Commitment

To work for 5 years as teachers in RTC, Dental nurse training school.

Attitude

- Conscientious, trustworthy and have commitment in POHC.
- Have the desire and commitment to train dental nurses in rural Cambodia.
- Has a desire to increase hid/her knowledge of oral health skill & Pedagogy.
- Able to promote good attitudes in students toward patients, members of the community and members of the health team.

4. TEACHING METHODS

The trainees will participate in variety of experiences, all intended to

(I) Help them learn

(II) Gain ideas for teaching more enjoyably and effectively

- The teaching will take place in Khmer. In the event of Expatriate trainers Khmer translation will be provided.
- Dental Nurse project consultant (ICC) and senior lecturers will introduce the basic educational theory.
- Teachers from RTC, Kampong Cham will work with the trainees to apply this theories and methodologies to train the dental nurses.
- The trainees will undertake supervised practical projects, which entail educational planning, curriculum development, and implement of teaching and evaluation.
- The trainees will develop their knowledge, skills and attitude related to their work, through experiences and practices through out the course.
- Auditing classes & practicing teaching.
- Workshop – with experienced facilitators
- **Gradual learning in clinic and field activities:**
 1. First step: Observing & working together with experienced teachers.
 2. Second step: Manage on His/her own in planning, organizing, Supervising and monitoring of the students' activities in the clinic and field.

ORGANIZATION AND STRUCTURE OF THE CURRICULUM

1 2 3 4	5 6 7 8	9 10	11 12 14 15 16 17 18
<p>Theory and clinical experience within the study day.</p> <p style="padding-left: 40px;">Cambodia Context</p> <ul style="list-style-type: none"> - Health cares system in Cambodia. - Primary health care & Primary oral health care in Cambodia. - Background history of & Dental nurse training. - Cambodian National oral Health Plan. - Identification of training needs - Educational Methodology - Restorative Dentistry (ART) - Management of Stock & Clinical records - Cross infection control 	<ul style="list-style-type: none"> - Organization & management of pre-clinical & clinic activities - Practice on ART - Scaling, Injection & extraction techniques - Educational Method (cont:) - Chair-side monitoring - Assessment of students - Field activities in the community. - Dental health education - Teaching aid 	V A C A T I O N	<p>Organization & management of field activities in the communities.</p> <p>Supervision and monitoring of the students' activities on:</p> <ul style="list-style-type: none"> - Community oral health care - Teaching aids - Community needs assessments. - School oral health promotion program

5. SEQUENCE OF STUDY

CONTENT
1. Cambodia context <ul style="list-style-type: none">- Health care system in Cambodia.- Primary health care in Cambodia- Primary oral health care in Cambodia- Background history of dentistry in Cambodia & Dental nurse training.- Cambodian National oral Health Plan.
2. Identification of training needs <ul style="list-style-type: none">- Purpose of a training program- Training students to do a job – Training based on job description- Basic development of Job description.- Role and responsibilities of the teachers and their respective job description.- Basic curriculum development.
3. Educational Methodology <ul style="list-style-type: none">- Introduction to teaching methodology- How to teach attitude- How to teach knowledge- Planning teaching sessions- General issues in Assessment- Assessment method
4. Preparing teaching materials <ul style="list-style-type: none">- Preparing teaching aids & posters and models.
5. Community dentistry for dental nurse <ul style="list-style-type: none">- Oral Health promotion program in Primary schools- Organization & management of field activities in the communities.- Community needs assessment
6. Organization & management of clinic activities <ul style="list-style-type: none">- Management of Stock & Clinical records- Pre-clinical & Clinic setting for various activities- Cross infection control
7. Restorative Dentistry <ol style="list-style-type: none">1. Atraumatic Restorative treatment (ART)
8. Minor oral surgery <ol style="list-style-type: none">2. Local Anesthesia & extraction (Standardization of technique)

5.1 DISTRIBUTION OF TIME FOR THEORY AND CLINICAL PRACTICE

SUBJECT	HOUR
Cambodia context	
- Health cares system in Cambodia.	2
3. Primary health care & Primary oral health care in Cambodia	
- Cambodian National oral Health Plan	2
- Background history of dentistry in Cambodia & Dental nurse training.	
4. Dental nurse curriculum	
5. Cambodian National oral Health Plan.	2
- Evaluation of Dental nurse project (3 times)	8
Identification of training needs	24
6. Purpose of a training program	
7. Training students to do a job – Training based on job description	
8. Basic development of Job description.	
9. Role and responsibilities of the teachers and their respective job description.	
10. Basic curriculum development.	24
Educational Methodology	
- Introduction to teaching methodology	
11. How to teach attitude, skill & Knowledge	
12. Planning teaching sessions	
13. General issues in Assessment & assessment method	
Administrative	12
Preparing teaching Materials	12
Community Dentistry	10
Restorative Dentistry	24
Minor Oral Surgery	
Local Anesthesia & extraction (Standardization of Injection and extraction techniques)	
Dental Health Education	12
Community dentistry	22
Pre-clinical practice	33
Total Hours	165

5.2 SUMMARY

	Hour	Week
Total theory	132 hours	4 weeks
Pre - Clinical experience	33 hours	1 week
Clinical experience	99 hours	3 weeks
Field experience	165 hours	5 weeks
Teaching materials	33 hrs	1 week
Management	66 hrs	2 weeks
Vacation	66 hours	2 week
Total	594 hours	18 weeks

5.3 ALLOCATION OF TIME FOR PRACTICAL WORK

Practical hours: $6.6 \text{ hrs/day} \times 5 \text{ days/week} \times 8 \text{ weeks/training} = 264 \text{ hrs/training}$

- | | |
|-------------------------------------|----------|
| 1. Teaching aids | 33 hrs. |
| 2. Clinical practice (base clinic) | 99 hrs |
| 3. Community oral health activities | 132 hrs. |

1. Teaching aids 33 hrs:

Supervision of the students' activities on:

- Designing and preparing dental health posters
- Preparing teaching aid materials.
- Poster competition

Practical training occurs outside the dental school and away from large city, in the communes and villages. Teachers must supervise & apply "problem solving based learning" in solving problems the students faced during the field trips. Students faced problem-solving situations that are real and awaiting them after graduation

E.g. Group planning of clinics and excursions of surrounding to create a functioning dental clinic.

2. Clinical practice (base Clinic) 99 hrs:

Planning, organizing, Supervision and monitoring evaluation of the students' activities on:

- Integrated oral health treatment, i.e. examination and recording, Atraumatic Restorative treatment, extraction of teeth and scaling of teeth.
- Sterilization & maintenance of instruments & materials.
- Arrangement of clinic & problems solving

3. Community oral health activities:

A. Dental health promotion program in the school - 33 hrs.

Planning, organizing, Supervision and monitoring evaluation of the students' activities on:

- Meeting and discussion with the teachers.
- Lesson planning and teaching aids
- Teaching dental health concepts to the teachers.
- Carrying out screening, simple oral health survey, % and DMFT.
- Teaching dental health education to the children in the classroom.
- Cooperate with the teachers to organize group oral hygiene instruction (tooth brushing), inter-school tooth brushing competition and fluoride mouth rinsing.
- Transportation

B. Community needs assessments 33 hrs

Type of activities:

Planning, organizing, Supervision and monitoring evaluation of the students' activities on:

- Contacting the authorities & form an oral health committee
- Organizing a survey to find out what oral disease people have.
- Planning and implementing activities.
- Transportation

C. Field trips to the villages: 99 hrs

Planning, organizing, Supervision, chair-side monitoring & evaluation of the students' activities on:

- Meeting and discussion with the Director and Health Director of the commune.
- Arrangement of field clinic & problems solving
- Examination of patients & recording
- Injection, extraction, filling and scaling technique
- Post operative care & dental health education
- Sterilization & disposal of wastage

6. JOB DESCRIPTION

I. Work locations

Dental nurse training in RTC

2. Purpose of Position

To over see the training school of the Dental nurses in RTC.

1. Plan, implement, manage and evaluate competency based training course for Dental Nurses.
2. Responsible for administrative in relationship with the Oral Health department MoH, Provincial Health Department and RTC.
3. Work out training logistic and daily scheduling.
4. Plan and facilitate workshops and seminars for graduate dental nurses.
5. Develop teaching aids and oral health posters. Review the curriculum, documentation of teaching manual.
6. Teaching, supervising, monitoring and evaluating the students in the following areas.
 - a. Theory: Respective subjects.
 - b. Practical:
 - Pre-clinical: Group and individual demonstration, task analysis and practice on the respective technique in the clinic.
 - Base clinic: Supervising chair-side teaching and monitoring the quality and quantity of the students' work.
7. Field work:
 - a. Communicate with the respective authority & department for planning organizing field trip.
8. Counseling the students in their social problems.
9. Management and supervision of the supply maintenance (main stock & sub-stock).
10. Arrange teaching schedule for "Oral Health care" for General nurses in the RTC.
11. Management and supervision of the stationary and clinical records.

7. EDUCATIONAL STANDARD

- The trainee will be expected to attend a minimum of 85% of the total course content consisting of lectures, seminars, tutorial and clinical & field practices.
- The trainee will be expected to undertake 90% of the assigned project and supervised teaching practice.
- Trainee will undergo continuous assessment through out the training.

7.1 EVALUATION CRITERIA

The assessment will have 2 parts:

- a. Continuous assessment (50% of overall grade)
 - At the end of each study module
 - Projects
 - Practical Teaching (Clinic & field) assessment.
- b. Final assessment.

8. OBJECTIVES FOR EACH MANUAL

CAMBODIA CONTEXT

- **By the end of the subject the student will be able to:**
 - Explain the existing oral health situation in Cambodia, & the National Oral Health Plan for Cambodia.
 - Relate dental nurse training with the health Care System in Cambodia, Primary health care, primary oral health care and health promotion.

IDENTIFICATION OF TRAINING NEEDS

- **By the end of the subject the student will be able to:**
 - Identify Job description for dental nurse
 - Identify Role and responsibilities of the teachers and their respective job description.
 - Ensure that the course is relevant to the task which will have to accomplish in order to meet the service needs.
 - Develop curriculum for dental nurse.

EDUCATIONAL METHODOLOGY

- **By the end of the subject the student will be able to:**
 - Facilitate teaching by using the principle adult learning
 - Teach in ways that encourage participation, problem solving and critical thinking.
 - Evaluate the efficiency of the students using appropriate Assessment method

ADMINISTRATIVE

- **At the end of the subject the student will be able to:**
 - Prepare daily, monthly and annual work plans and report of activities.
 - Implement plans and evaluates work performed.
 - Look after resources that have been provide to her work section.
 - Diagnose instruments & equipment problem and under take periodic maintenance and of them.

RESTORATIVE DENTISTRY & MINOR ORAL SURGERY

- **At the end of the subject the students will be able to:**
 - Diagnose carious lesions that can be treated appropriately using Atraumatic Restorative Treatment (ART technique).
 - Perform restorations using high technical skills.
 - **Describe the minor oral surgery techniques used in dental nurses training, and apply the same techniques for training dental nurses.**

COMMUNITY ORAL HEALTH

- **At the end of the course the student will be able to:**
 - Conduct simple needs assessments and applied in relation to oral health promotion.
 - Plan and implement school based and community based preventive, promotive and dental public health activities.

DENTAL HEALTH EDUCATION

- **At the end of the subject the student will be able to:**
 - Plan dental health lessons for various people groups.
 - Apply proper teaching methodology to encourage learning.
 - Prepare his/her own teaching aids
 - Carry out multi - sectorial approach in health education for general health as well as oral health well being.
 - Perform the principles of teaching & learning.

PREPARING TEACHING MATERIALS

- **At the end of the course the student will be able to:**
 - Develop and test teaching/learning materials that would serve the students as course texts as sources of reference during their service.

PRE-CLINICAL PRACTICES

- **At the end of the course the student will be able to:**
 - Plan, Organize & demonstrate respective skill for pre-clinical practices.

MANAGEMENT SKILL

- **At the end of the course the student will be able to:**
 - apply management principles;
 - acquire to learn multiple skill to allow for flexibility in successful management and leading in their situation;
 - Improve the skills that are necessary for management;
 - Create awareness of the students the participatory method of management;
 - Strengthen participants in identifying their roles of managers within their own organization and department;
 - Reflect and develop on trainees current management style how democratic and autocratic leadership style effect subordinate responses;
 - Improve the participants in learning the basic planning & strategy skills in their own training;
 - Carry out meeting effectively;

CAMBODIA CONTEXT

CODE	THEME	HOURS		
		Theory	Practical	Total
CC 1	- Health care system in Cambodia.	2		2
	- Primary health care in Cambodia			
	- Primary oral health care in Cambodia			
CC 2	- Cambodian National oral Health Plan.	2		2
	- Background history of dentistry in Cambodia & Dental nurse training.			
	- Dental nurse curriculum	2		2
	- Evaluation of Dental nurse project (3 times)	6	-	6
	- Evaluation of competency		2	2
Total hours		12	2	14

IDENTIFICATION OF TRAINING NEEDS

CODE	THEME	HOURS		
		Theory	Practical	Total
TN 1	- Training students to do a job	1	-	1
	- Training based on job description	2	1	3
	- Basic development of Job description.	2	1	3
	- Role and responsibilities of the teachers and their respective job description.	1	2	3
TN 2	- Basic curriculum development.	4	8	12
	- Evaluation of competency	-	2	2
Total hours		12	12	24

EDUCATIONAL METHODOLOGY

CODE	THEME	HOURS		
		Theory	Practical	Total
EM 1	- Introduction to teaching methodology	2	1	3
	- How to teach attitude	2	-	2
	- How to teach skill	2	2	4
	- How to teach knowledge	2	1	3
	- Planning teaching sessions	2	1	3
EM 2	- General issues in Assessment	2	1	3
	- Assessment method	2	2	4
	- Evaluation of competency	-	2	2
Total hours		14	10	24

ADMINISTRATIVE

CODE	THEME	Hour		
		Theory	Practical	Total
AM1	1. Work Plan			
	• Daily, monthly, annual planning, record and report	1	1	2
	• Plan, implement and evaluate work • treatment chart and recording	1	1	2
AM2	2. Maintenance of materials			
	• Stock keeping of instruments and materials	1	1	2
	- Entry into the Main stock book			
	- Use of sub-stock book			
	- Daily use of materials			
	- Inventory of stock			
	• Use and care of instruments	1	2	3
- Sharpening of instruments				
- Maintenance of instruments				
- Weekly cleaning and maintenance				
AM 3	• Clean work-site		1	1
	- Daily and weekly cleaning of the Clinic			
	- Cleaning of environment			
	- Disposable of wastage			
	- Evaluation of competency	-	2	2
	Total Hours	4	8	12

PREPARING TEACHING MATERIALS

CODE	THEME	HOURS		
		Theory	Practical	Total
TM 1	Teaching Materials			
	- Initial Planning	2	-	2
	- Writing and evaluating the teaching materials	1	2	3
	- Layout and Illustration	1	2	3
	- Production and distribution of teaching materials and manuals	1	1	2
	- Evaluation of competency	-	2	2
	Total hours	5	7	12

COMMUNITY DENTISTRY

CODE	THEME	HOURS		
		Theory	Practical	Total
CD 1	- Planning activities & community participation			
	• Principles of community development.	1	-	1
	Simple survey for oral diseases.	1	2	3
	- Evaluate the result of the survey, DMFT & % of Oral diseases			
	- Preparing Graphic and document			
CD 2	- Applied Research in relation to oral health	2	3	5
	- Evaluation of competency	-	2	2
Total Hours		4	6	10

DENTAL HEALTH EDUCATION

CODE	THEME	HOURS		
		Theory	Practical	Total
DH1	Teaching methodology			
	• Planning lessons for different levels	1	-	1
	• Using teaching aids effectively	-	1	1
DH 2	Educational resources			
	• Produce teaching aids	1	5	6
	- Plaster models			
	- Posters			
	• Compose dental health songs & poems	0	1	1
DH3	Group tooth brushing program			
	• Plan, implement & evaluate group	2	1	3
	• Tooth brushing programs in the schools			
	- Teaching tooth brushing in group			
	- Dental health song and action			
	- Dental health play			
	- Tooth brushing competition			
Total hours		4	8	12

PRE-CLINICAL PRACTICES

CODE	THEME	HOURS		
		Theory	Practical	Total
1.	Planning, Organizing, and demonstration on the following skills: <ul style="list-style-type: none"> - Examination of patients & recording - Operator working position (Supine) and semi supine - ART technique Mixing of and restoration of GIC - Injection and extraction technique & Post operative care first aid. - Taking blood pressure - Suturing - Scaling technique - Use and care of instruments - Sterilization - Clinical records 			
			2	2
			2	2
			6	6
			6	6
			2	2
			2	2
			3	3
			2	2
			2	2
			1	1
2.	Task analysis and development of check lists for above activities		5	5
	Total hours		33	33

**ATRAUMATIC RESTORATIVE TREATMENT
&
MINOR ORAL SURGERY**

CODE	THEME	Hour		
		Theory	Practical	Total
CD1	ART technique			
	• Introduction	1	-	1
	• Principal of ART	1	-	1
	• Type of cavities	1	-	1
	• Indication & contra indication for ART			
	• Supine position	1	-	1
	- Work posture of operator			
	- Patient head position according to the operating area; upper teeth lower teeth			
	• Type of instruments and handling	-	1	1
	• Sharpening of instruments	1	1	2
	• Procedure in cavity preparation	1	1	2
	- Technique of removing caries			
	- Cleaning the cavity & using dentine conditioner			
• Preparation of oral cavity				
- Exclusion of moisture				
CD 2	Glass Ionomer			
	• Properties of Glass Ionomer	1	-	1
	• Technique of mixing			
	• Technique of restoration	1	1	2
	- Checking high bite and & applying vanish			
	- Instruction after restoration			
	• Evaluation & follow up	2	1	3
• Patient Management	2	-	2	
• Evaluation of Competency	-	2	2	
CD 3	Minor oral Surgery			
	• Overview the manual of Minor oral surgery and standardized the Injection and extraction technique. • Instruments used for dental nurses	2	3	5
	Total Hours	16	8	24