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SUMMARY REPORT

WORKSHOP ON MODULAR CURRICULA IN  
MIDWIFERY TRAINING

Alexandria, 1 - 12 August 1977

The views expressed in this report do not necessarily reflect the official policy of the World Health Organization.

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## I INTRODUCTION

The Workshop was held in the WHO Office of the Eastern Mediterranean Region from 1 to 12 August 1977. Fourteen participants from eight countries attended, including three WHO staff members.

The purpose of the Workshop was to give midwifery teachers an opportunity to explore the usefulness of the modular approach for their programmes. In his message of welcome, Dr A.H. Taba, Director, WHO Eastern Mediterranean Region, outlined some of the difficulties faced by countries in providing adequate personnel for the health care services to meet the needs of their populations. He hoped that in learning a new educational method - the modular approach - participants would also be aware of the needs of society for health practitioners who could provide the type and quantity of care needed. The Regional Director's message is attached in Annex I.

## II BACKGROUND INFORMATION

As health becomes an integral part of both short-term and long-term national planning projects, it becomes clear that a need exists for health practitioners who can give basic care to people in areas previously unaccustomed to or deprived of health care services. Those who provide such care must be competent, practical and resourceful.

Perhaps this need is most keenly felt in maternal and child health, where the creative minds of tomorrow depend on well-cared-for bodies today. If we are adequately to address the unmet health needs of mothers, infants and children, it will be necessary to have more people trained to provide simple health care that people can understand and accept. Since the beginning of time, most of the babies of the world have been delivered by family members, traditional birth attendants or midwives. The latter, then, represent a source of personnel to provide the needed services.

Traditional patterns of education, with their emphasis on memorization and lecture are unlikely to produce a graduate capable of independent thinking, good judgement and resourceful practice - qualities essential to midwives delivering effective health care. Educators are constantly looking for ways to facilitate learning.

A new approach to the education of midwives began in the United States of America in 1972. Programmes were developed which were goal-oriented rather than time-oriented. This approach allowed two important things to happen: (1) students who had learned quickly finished the programme early and were therefore able to begin delivering services sooner, and (2) students who learned more slowly were given the extra time they needed to develop competence, thus avoiding the entry of incompetent practitioners into the health care delivery system.

The curriculum for these programmes was composed of self-contained units of learning (modules) that emphasized the achievement of certain well defined objectives and allowed the students to progress according to their ability. This increased the likelihood that programme graduates would be competent practitioners.

Modular curricula utilize a number of concepts not found in traditional educational programmes. These include identifying the role of the instructor as a facilitator of learning rather than a giver of information, and an emphasis on the students using their own resources to find answers to questions. Also the curricula substitute reading and audiovisual aids for most lectures.

Modular instruction has many advantages:

- students use their time more efficiently
- they become actively involved in their own learning
- they know exactly what they must learn
- they co-operate among themselves
- they receive credit for existing knowledge and skill, and
- they realize the tests are fair because they are based on objectives.

From the teacher's point of view:

- co-operation between teacher and student is increased
- learning problems are identified early, and
- teachers are freed to stimulate thinking, help students who have learning problems, serve as resource persons, encourage questioning, reinforce appropriate behaviour and provide support.

Certainly the modular approach has not been without problems. Among those encountered has been lack of self-discipline on the part of the students to participate actively in their own learning, particularly when their education in the past had meant that the teacher provided specific guidance on what to do. In addition, teachers and students have experienced difficulty in dissociating themselves from the lecture as the primary medium of instruction.

But, in general, the modular design, as implemented in schools of midwifery in the USA, has been found to be superior to other methods of instruction. Because of the constant focus of modules on clinical competence, several medical schools are also beginning to experiment with this approach.

The appropriateness of modular education for other countries has not yet been established. This can only be determined if modules are designed, implemented and tested in a variety of situations.

Potential problems, however, have been identified. These include institutional and licensure constraints that require a specified number of hours in lecture and in clinical practice; lack of time for independent student study because of tightly scheduled programmes; insufficient faculty time to design the modules due to an extremely low faculty/student ratio; lack of reference materials for writing the modules; insufficient influence of midwifery teachers to introduce change; and poor reading ability of the students particularly if the instruction is in a second language.

In 1976 the World Health Organization sponsored a two-week Inter-Regional Workshop on the Development of Modular Curricula for Midwifery Teachers which was held in Manila. The results of that endeavour are currently being evaluated to see if modules have been implemented and utilized.

### III THE WORKSHOP ON MODULAR CURRICULA IN MIDWIFERY TRAINING

This Workshop, which is described in the following pages, represents a preliminary attempt to present information and to gather data concerning the usefulness of modules in countries of the Eastern Mediterranean Region.

#### 1. Aims of the Workshop

The purpose of the Workshop was to give midwifery teachers a rationale for the modular approach, an opportunity to design a module, and a knowledge of the administrative considerations which are involved in a curriculum designed for independent learning.

#### 2. Objectives

The objectives of the Workshop were to enable the participants to:

- (1) Apply concepts and principles of learning to the modular approach
  - (a) Identify elements of various educational philosophies and their contribution to modular orientation.
  - (b) Apply psychological concepts to modular learning.
- (2) Write a module which contains the following components: objectives, pre- and post- evaluation and learning activities.
- (3) Evaluate a written module according to a list of criteria.

- (4) Identify learning strategies that can be used to attain objectives.
- (5) Identify three types of evaluation that can be used to determine attainment of objectives.
- (6) Analyse the administrative and organizational aspects of modular implementation.
  - (a) Identify constraints placed by institutions on self pacing and grading.
  - (b) Understand the relationship between personnel availability and the students' progress.
  - (c) Understand the influence of time and space utilization on the students' progress through the programme.
  - (d) Know the factors that influence developmental and operational costs of a modular programme.
- (7) Discuss the appropriateness of the use of modules in developing countries.

### 3. Participants

The Workshop was attended by eleven participants from eight countries of the Eastern Mediterranean Region and three WHO Nurses. Criteria for selection were:

- (1) post-basic preparation in teaching;
- (2) holding responsible teaching positions, and
- (3) an adequate command of the English language.

A list of participants is given in Annex II.

### 4. Conduct of the Workshop

The Workshop was conducted in plenary and group sessions and in independent activities. Plenary sessions were attended by all participants, to discuss content and materials related to aims, purpose, rationale, implementation and evaluation of modular curricula as well as for the assessment of participants and of the Workshop. The programme is attached as Annex III.

Discussions following the plenary sessions were both enlightening and penetrating. Every effort was made to present alternative viewpoints and problems in the implementation of a module and modular curriculum. Discussions showed that many of the problems were common to all participants. The sharing of these problems served as a vehicle for identifying potential solutions.

Independent activities included:

- (1) The use of a modular approach in the Workshop. It was felt that by utilizing the modular approach the participants would have a better grasp of this teaching-learning strategy. In addition the merit and value of such an approach could be experienced by participants in the learner role. As they had come to the Workshop with varying levels of educational preparation and experience, they mastered the modules at varying speeds. Small group discussions, tutorial help and audio-visual aids were available to those who needed such assistance.
- (2) The design of a module on a topic selected by the participants according to their individual areas of interest. It was considered that the product would be meaningful and useful, as the module could be incorporated into a programme in their home institution. Annex IV gives a list of the modules prepared by participants.

The design of modules required that the consultants met with participants on an individual basis so that the scope of the module could be more clearly delineated and pertinent and relevant objectives specified. This approach assured that a variety of learning opportunities and strategies could be encouraged and that evaluation instruments would be congruent with the objectives of the module. Small group discussions were also used in evaluating modules written by group members. Large group discussions followed, to clarify and enlarge the scope of the content.

The consultants used a book, Facilitating Teaching - Learning with Modules, as the major reading source during the Workshop.

This book was based on information covered in the Inter-Regional Workshop held in Manila in 1976.

It was sent to each participant before the Workshop was held and will be retained by the participants.

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\* Additional copies may be obtained on request from WHO EMRO or from WHO HQ, Geneva



#### 5. Evaluation of Participants and Evaluation of Workshop

To assist the consultants in providing the correct guidance to participants and to enable the participants to monitor their own progress, evaluations were held before, during and at the end of the Workshop.

The final Workshop evaluation sought to determine the participants' perception of content coverage, teaching strategies and plans for the future.

Results of the evaluation revealed that the participants were satisfied with the quality and scope of the content presented and showed a significant change in their understanding of the modular approach and their motivation to utilize this method of instruction in the future.

#### IV CONCLUSIONS

The modular approach to midwifery training has the potential of being adaptable for all levels of personnel involved in the training of health care practitioners. The practitioners are more likely to provide relevant health care, while, at the same time, the teaching staff, always in short supply, can be utilized to the best advantage.

However, this approach requires teachers who are trained and motivated to adopt the wider concept of the teachers' role. If the approach is to be successful they must overcome the initial insecurity experienced by most students in accepting responsibility for their own learning.

The introduction of the modular concept, as an approach to midwifery education, was new to most of the participants. By the end of the Workshop, however, most of them were fully conversant with the various aspects of modular curricula, had prepared a module themselves and were eager to implement this approach on their return to their countries.

In addition to adopting this concept as a method for an entire curriculum, they considered that it had the following potential for use in their midwifery education programmes:

- (1) It could be used for special sections of the curriculum, e.g. those which needed strengthening or changing to make them more relevant;
- (2) It could be used to introduce new learning into an existing curriculum, e.g. concepts involved in training and utilization of the Traditional Birth Attendants and introduction of Family Planning concepts.
- (3) Through the modular approach, new teaching strategies, including different methods of evaluation, could be introduced into the curriculum.

- (4) Modules, once developed, provided a means of assisting the new and the less well qualified teachers, while ensuring that the necessary content was covered.
- (5) Modules once developed represented a means of making more effective use of the teacher's time.

If left alone, one person newly introduced to an idea, the validity of which is yet to be determined, has little chance of influencing her colleagues, no matter how enthusiastic she may be. As in any new endeavour, reinforcement, support, feedback and evaluation are essential if the idea is to have any chance of being successful.

Accordingly, to facilitate the introduction of modules into the schools of the participants,

- (1) A follow-up questionnaire will be sent two months after the end of the Workshop to:
  - (a) identify the extent to which the participant has shared the knowledge gained at the Workshop with her faculty colleagues, the administrators of the school and the others;
  - (b) identify the reactions of the above to the concept;
  - (c) identify the extent to which the participant feels that modules can be introduced into her programme at the present time;
  - (d) identify the problems associated with the introduction and design of modules;
  - (e) identify the help that the participant/programme needs to introduce, design, implement, and evaluate modules.
- (2) A follow-up questionnaire will be sent out six months after the Workshop, to achieve the same objectives. Both questionnaires should also serve to renew the participants' enthusiasm in modular curricula.
- (3) A follow-up visit will be paid three to twelve months after the Workshop by a person skilled in the modular approach to those participants whose Governments request additional help. Activities seen as appropriate at this time include:
  - (a) introduction of the concept to other faculty members or administrators and others;
  - (b) assistance with modular design;

- (c) planning for the introduction of modules into the curriculum;
- (d) provision of support and reinforcement of activities already initiated.

#### V RECOMMENDATIONS

The following recommendations are made, on the basis of the experience and observations of the consultants, participants and secretariat:

- (1) Once the viability of the modular approach is determined, additional workshops should be held to introduce the concept to a larger number of teaching institutions.
- (2) Future workshops should be at of least three weeks' duration, to allow time for initial introduction of concepts of teaching which are basic to the modular approach and will enable participants to prepare their own modules more thoroughly.
- (3) Future workshops should be conducted on a national basis, and the consultants (if they do not speak the language of the country) should be assisted by a national midwife teacher who understands the modular approach and could assist in translating some of the more difficult concepts.

ANNEX I

MESSAGE FROM DR A.H. TABA  
DIRECTOR  
WHO EASTERN MEDITERRANEAN REGION

Ladies and Gentlemen, Colleagues and Friends,

It gives me pleasure to welcome to the Regional Office the senior nurses and midwives from countries of the Region who are participating in this workshop.

To an increasing extent workshops are proving a useful way in which we, in WHO, are collaborating with member countries. In our workshop WHO and national staff, participants and consultants work together with the aim of finding different approaches to meeting some of the problems being faced by the health services today.

Before deciding on how this workshop is to help you it might be pertinent to decide what we are all trying to achieve.

Provision of adequate health care to meet the needs of all the people by the year 2000 is the ambitious goal of WHO, and this aim, we are confident, is shared by all the member countries.

What are some of the obstacles which face us in trying to achieve this?

Despite extensive efforts in the past, by member countries and by WHO, the health manpower situation of all countries of the Region is characterized by an overall shortage, a substantial imbalance and a severe degree of maldistribution of health personnel.

This means that large segments of the populations are not receiving any form of health care because there are no health workers available or accessible to them.

But, in addition, we are becoming increasingly, but reluctantly, aware that many of those who do receive care are not getting the sort of care which is most suited to their needs.

Thus there are three separate, but independent areas, the quantity, the quality and the relevance of the health care which may all need change.

For changes to occur recognition of the needs must be reflected in the countries themselves. There is optimism that this is so as in many countries of the Region there is an increasing awareness of the need for new approaches to the way health workers are trained and used as well as the need for increased numbers of health personnel.

To a greater extent new categories of workers are being trained and utilized. This includes the use of traditional practitioners in the established health services, now being adopted in many countries.

There is a growing realization that the training programmes must have relevance for the countries in which they are developed.

This recognition of the need for relevance is accompanied by the recognition that there must be closer cooperation and coordination between those responsible for training health personnel and those responsible for the health services in the country. There must be agreement on common objectives and on how to evaluate the results.

These changes are occurring on many levels and in many sectors of the health services as our knowledge and understanding of the many factors involved in the delivery of health care increases.

In WHO, our recent changes of direction, and our re-thinking of policy and programmes, have all been towards focussing ever more closely upon our responsibility to improve the health of the people. We are getting further and further away from both the categorical approach to the control of individual diseases and the isolated single disciplinary approach to the development of separate professions or groups of health workers.

Our new programmes are concerned with finding alternative approaches to delivery of health care and appropriate technology for health and Primary Health Care has high priority in our plans.

Countries are being encouraged to adopt broader approaches to health planning, to consider their needs and utilize their resources through Country Health Programming.

We are trying to free ourselves as much as possible from the influence of the previously accepted patterns of health services planning and health manpower development.

For this we are increasingly stressing the need for such approaches as integrated projects, coordinated health services and manpower development and a multi-professional approach to the education and training of health professionals, as well as the need for all trainings to embody modern educational methods.

But in the final analysis it is the individual, whether front-line worker, supervisor, administrator or teacher who will implement these changes.

As senior midwives you have a responsibility not only to be aware of the changes which are occurring in your own countries and elsewhere but, to the extent possible, to foster changes which seem desirable.

How will this workshop of two weeks help you?

Principally it will be helping you to learn a new educational approach.

I will not anticipate the content of the working sessions beyond mentioning that the modular approach, while new in itself, incorporates many of the concepts in education which should have been the basis of our teaching programmes a long time ago. These concepts are, building our teaching on what the student needs to learn, allowing the student to proceed at his or her own pace, recognizing what the student already knows, and letting the student recognize what he or she has learned.

You will learn how to develop your own modules and how to evaluate the resultant learning. You will discuss the advantages and disadvantages of the modular approach, so that your decisions on whether or not to use it in the future will be based on sound principles.

However I would like to repeat to this group a statement I have made several times, which is that new approaches to teaching and learning are of no value whatever, and indeed may be harmful, if they are used to increase the effectiveness of teaching and learning the wrong thing, or if they are used as ends in themselves.

There is no doubt that modules provide a new approach to teaching and learning. The module you prepare during this workshop may indeed be based on known and previously accepted material. However, the modules you prepare when you return to your own countries should reflect the new knowledge acquired during this workshop and elsewhere.

We are pleased to have with us as consultants for the workshop Mrs Reibel and Dr Wheeler, who bring with them a wealth of knowledge and experience in nursing education and who assisted WHO/HQ in the preparation of the manual "Learning with Modules" which provides the principal working document for this workshop.

It is not only in the field of education where change is occurring. During the two weeks of this workshop you will have opportunities of discussing with each other the developments which are occurring in your own countries which help midwives provide a more effective service to the mothers.

In addition during these two weeks you will have opportunity to consult with the Regional Advisers concerned on the new approaches to midwifery care, which take cognizance of all the factors which affect the safe delivery of mothers and set their children on the road to health.

The resources of our library are at your disposal and you can scan through some of the newer books to see whether any of these could be of use in your own schools for either students or teachers.

In conclusion let me say that there are many challenges facing us. This one short workshop is demonstrating a new process in education which may provide more efficient learning for students, but you must be equally concerned with what your students learn. Education, to be effective, must meet the needs of society as well as of students.

I wish you success in your deliberations.

ANNEX II

LIST OF PARTICIPANTS

Democratic Yemen	Miss Zainab Soori Nurse Midwife Institute of Health Manpower Development <u>Aden</u>
Egypt	Dr Seham Rajheb Lecturer Higher Institute of Nursing <u>Alexandria</u>  Mrs Magda Mourad Assistant Lecturer Obstetrics/Gynaecology Higher Institute of Nursing <u>Alexandria</u>
Iran	Mrs Elmenaze Khazemy Director Post-basic Midwifery Programme <u>Kermanshah</u>
Iraq	Miss Bushra N. Cutta Nurse Midwife Al Karkh Midwifery Hospital <u>Baghdad</u>
Jordan	Mrs Siham Abu-Fl-Huda Director Midwifery School <u>Amman</u>



Pakistan

Mrs Khalida Amin  
Director  
Nursing Services, Punjab  
Lahore

Mrs Zeenat Hameed  
Tutor Sister  
Sandeman Provincial Hospital  
Quetta (Baluchistan)

Somalia

Miss Asia Maktal Dahir  
Principal, Hargeisa School  
of Nursing  
Hargeisa

Sudan

Sister Nafisa Imam Abdalla  
Tutor in Midwifery  
Khartoum Nursing College  
Khartoum

Sister Fatma Osman Killa  
Tutor in Midwifery  
Khartoum Nursing College  
Khartoum

WHO Staff Participating

Miss A. Garcia  
WHO Public Health Nurse  
Institute of Health Manpower  
Development  
Aden  
DEMOCRATIC YEMEN

Miss N. O'Brien  
WHO Nurse Educator  
Nursing Education Project  
Amman  
JORDAN

Mrs R. Clark  
WHO Nurse Educator/Midwife  
Nursing Education Project  
Hargeisa  
SOMALIA

WHO SECRETARIAT

Dr A. Robertson	Public Health Administrator Health Manpower Development	WHO Regional Office for the Eastern Mediterranean, Alexandria, Egypt
Miss E. Leedam	Regional Adviser on Nursing Development	WHO Regional Office for the Eastern Mediterranean, Alexandria, Egypt
Mrs E. Reibel	Consultant	Formerly Instructor, School of Nursing, Ohio State University, Ohio, USA
Dr L. Wheeler	Consultant	Clinical Assistant Professor, School of Public Health Department of Maternal and Child Health, University of North Carolina, USA
Mrs C. Cartoudis- Demetrio	Conference Officer	WHO Regional Office for the Eastern Mediterranean, Alexandria, Egypt
Mrs B. Shaarawy	Secretary	WHO Regional Office for the Eastern Mediterranean, Alexandria, Egypt

ANNEX III

PROGRAMME

Monday 1 August

- 8.15 a.m. - Registration of participants
- 8.30 a.m. - Opening of the Workshop
- 9.15 a.m. - Introduction of participants
- 9.45 a.m. - Aims and purposes of workshop  
Explanation of methods used in workshop
- 11.00 a.m. - Pre-workshop assessment of participants
- 12.00 a.m. - 2.00 p.m. - Rationale behind the modular approach: Philosophy and Psychology

Tuesday 2 August

Plenary session and small group activities

- 8.00 a.m. - 2.00 p.m. - Behavioural objectives
- Examples of modules for participants

Wednesday 3 August

Plenary session and small group activities

- 8.00 a.m. - 2.00 p.m. - How to design a module
- Independent work throughout workshop: Design of modules by participants

Thursday 4 August

Plenary session and small group activities

- 8.00 a.m. - 2.00 p.m. - Learning strategies

Friday 5 August

Plenary session and small group activities

8.00 a.m. - 2.00 p.m.

- Evaluation methods
- Mid-session evaluation

Monday 8 August

Plenary session and small group activities

8.00 a.m. - 2.00 p.m.

- Evaluation methods (continued)

Tuesday 9 August

Plenary session and small group activities

8.00 a.m. - 2.00 p.m.

- Supportive services and facilities in education

Wednesday 10 August

Plenary session and small group activities

8.00 a.m. - 2.00 p.m.

- Curriculum decisions
- Participants' own projects completed

Thursday 11 August

Plenary session

8.00 a.m. - 2.00 p.m.

- Post-workshop assessment of participants
- Assessment and review

Friday 12 August

Plenary session

8.30 a.m.  
12.30 p.m.  
1.00 p.m.

- Distribution of modules and discussion
- Evaluation of workshop
- Closing of the workshop

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10.30 a.m. - 11.00 a.m. each day: Coffee break

ANNEX IV

MODULES WRITTEN BY PARTICIPANTS \*

1. "Delivering the Placenta Safely" by Mrs Zainab Soori
2. "Breast-Feeding" by Seham S. Ragheb
3. "Post-partum Exercises" by Magda Y.H. Mourad
4. "Intra-Uterine Devices - The Loop" by Elmenaze Khazemy
5. "Post-partum Haemorrhage" by Bushra N. Cutta
6. "Post-partum Haemorrhage" by Siham Abu-El-Huda
7. "Breast-Feeding" by Khalida Amin
8. "The Condom" by Zeenat Hameed
9. "Three Types of Circumcision in Somalia" by Asia Maktal Dahir
10. "Eclampsia" by Nafisa Imam Abdalla
11. "Clinical Use of Oral Contraceptive Pills" by Fatma O. Killa
12. "The Immediate Care of the Newborn Baby" by Angelita T. Garcia
13. "Haemolytic Disease of the Newborn" by N. O'Brien
14. "Anaemia in Pregnancy" by R. Clark

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\* These are not included in the Report. Copies of specific modules will be sent to interested persons on request to this Office.