
SPECIAL ARTICLE

Postgraduate Pediatric Training Programme in the Department of Child Health, Medical School University of Indonesia, Jakarta.*

(GENERAL OUTLINE OF THE CURRICULUM)

by

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Abstract

Paediatrics is a major subject in undergraduate as well as postgraduate medical training. Demographic data show that 44% of the population in Indonesia as well as in other developing countries belongs to the paediatric age group.

The objective of the training of paediatrician should be relevant to the needs of the society in child health care using the available potentials in the society and with the participation of the society.

In this paper the determinant of objective, the objective, the methodology, the evaluation and the feedback system of the postgraduate paediatric training programme in the Department of Child Health, Medical School, University of Indonesia, is briefly described.

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In setting up a programme one has to start with identification of the problems. Knowing the problems which serve as a challenge, one tries to face it. To answer the challenge a system is created. Solving a problem with the use of a system is popularly known as a systemic approach (Banathy, 1968).

Child health problems have many aspects, i.e. political, economical, educational, social and cultural. Postgraduate paediatric training programme is a systemic approach to solve Child Health problems in a particular period of time. The problems change with time, with the progress in technology and consequently with the changes in the needs of the society. Hence the system of postgraduate paediatric education must have an objective which is relevant to the needs of the society in a given time. The society as the suprasystem is the consumer of the output of the system.

1. Determinants of the objectives (Proc. workshop PPEIPS, 5-9 May 1975):

The problems which serve as determinants of the objectives are identified as follows:

1. The demography

The demography shows (Sudiyanto, 1974):

- a. High crude birth rate $\pm 43\%$
- b. High natural increment (2.4%)
- c. Predominantly rural population ($\pm 80\%$)

d. High paediatric age group ($\pm 44\%$)

2. The socio-economic condition, which is as follows:

- a. Low educational level of the majority of the population
- b. Low school enrollment ratio
- c. Shortage of qualified health personnel
- d. Low income per capita
- e. The presence of socio-cultural hindering factors.

3. Health care delivery system in Indonesia

The referral system of the health care delivery is as follows:

a. "Puskesmas" (Health Centre) is designed to give primary health care.

The health centre is staffed by a general practitioner, dentist, midwives, nurses, public health nurses and other paramedical personnel.

b. Type D Hospital

This hospital serves as referral for Puskesmas and is staffed by general practitioners and paramedical personnel.

c. Type C Hospital

This is a district hospital which serves as referral for Puskesmas or type D hospitals. There are at least four specialists in this hospital i.e. a surgeon, an internist, a paediatrician and an obstetrician.

d. Type B Hospital

This hospital is located in the provincial capital. It is staffed by specialists in all branches of medicine and surgery. It serves as referral for type C hospitals.

f. Type A Hospital

This is a top referral hospital with complete teams of specialists and subspecialists. At present there are only two of such kind of hospital in Indonesia, i.e. the Dr. Cipto Mangunkusumo General Hospital, Jakarta and the Dr. Sutomo General Hospital, Surabaya.

4. Health facilities in general are minimal. :

- a. Shortage of physical facilities
- b. Shortage of health manpower:
 - general practitioners
 - specialist
 - para medical personnel
 - one paediatrician for 176.000 paediatric population.

5. Morbidity and mortality pattern

- a. Main morbidity :
 - Upper Respiratory Tract Infections
 - Protein Calorie Malnutrition
 - Gastroenteritis
 - Vit. A deficiency
 - Tuberculosis
- b. Mortality :
 - High perinatal mortality rate
 - High infant mortality rate

High pre-school age mortality rate.

II. Role of the Indonesian Paediatrician

Considering the determinants of the objectives, the role of the Indonesian paediatrician in the society should be as follows :

- Performing child health services
- Research
- Education
- Humanitarian in attitude

III. Objective

Based on the above mentioned determinants, the objective of the postgraduate paediatric education is:

To create a paediatrician with adequate knowledge, skills and proper attitude to meet the needs of the population in child health in order that the child obtains optimal growth and development individually in the family as well as in the society.

IV. The prerequisites of the Indonesian paediatrician are:

1. Capable of solving Child Health problems.
2. Having proper attitude in accordance with the Indonesian doctor's ethics.
3. Having an inquiring mind and capable of performing investigations.
4. Capable of using available resources.
5. Capable of educating health manpower.

6. Capable of organizing Child Health care delivery.

V. Course contents

Based on the above mentioned considerations the department determines the course contents as follows:

1. Growth and Development
2. Common paediatric diseases in Indonesia.
3. Care of the newborn
4. Social paediatrics
5. Education and research
6. Organization of paediatric care delivery.

VI. Instructional objectives

The instructional objectives of the contents are elaborately described in a special booklet. The description of the objectives in a measurable behaviour is absolutely necessary to help the trainee and the teacher to reach the objectives.

VII. Strategy of learning and teaching.

The strategy of learning and teaching are described explicitly in another booklet (Dept. of Child Health, Univ. of Indonesia: Strategy of learning and teaching in postgraduate paediatric training 1975). The outlines of the methods of acquisition of knowledge and skills are briefly as follows:

1. Periodical case presentations
2. Periodical death conferences
3. Periodical clinico-pathology-community paediatrics conferences.
4. Discussion of patients after discharge

5. Periodical journal readings
6. Lectures with audiovisual aids.
7. Films
8. Assignments in the wards and field practice areas
9. Grand rounds
10. Demonstrations
11. Emergency duties
12. Experiences in education
13. Experiences in research
14. Experiences in organization of a paediatric care delivery

VIIa. Assignments in the wards and field practice areas

The assignments in the wards and field practice areas are done through rotation in :

1. General paediatric wards (mostly infectious diseases and nutritional disorders)	7½ months
2. Out-patient department	1½ months
3. Nutritional disorders	1½ months
4. Gastroenterology	3 months
5. Neurology	3 months
6. Cardiology	3 months
7. Haematology	3 months
8. Nephrology	3 months
9. Neonatology	3 months
10. Paediatric surgery ...	1½ months
11. Radiology	1½ months
12. Child guidance clinic	2 months
13. Field practice areas for community paediatrics	3 months
14. Pulmonology	3 months
T o t a l	39½ months

VIIb. Experiences in education

The objective is to enable the trainee to understand the principles of medical education.

The experiences in education are obtained through :

- Instruction of medical students
- Instruction of paramedical personnel
- Later on :
 - designing curriculum
 - writing instructional objectives
 - evaluating medical students

VIIc. Experiences in research

The objective is to enable the trainee to understand research methodology, to do and interpret scientific reports.

The experiences are acquired through:

- Writing literature reviews on recent topics in child health
- Writing three scientific papers either as senior author or co-author.

At least one of them must be in English.

VIIId. Experiences in organization of a paediatric care delivery

The objective is to enable the trainee to lead a project in child health in the system of health care delivery in the society.

The experience is acquired through:

- Assignment in the wards
- Assignment in the out-patient department

- Assignment in field practice areas
- Study visits to governmental health services.

The strategy of learning and teaching is elaborately described in another booklet (Dept. of Child Health, Univ. of Indonesia : Strategy of learning and teaching in postgraduate paediatric training 1975).

VIII. Evaluation

Evaluation is a criterion referenced one. A check list of predetermined measurable competencies is prepared and used. The trainees are assessed continuously with the use of the check list. The check list is filled up by a team of supervisors based on continuous observations.

Occasionally evaluations in the form of interview are conducted if necessary. Regular staff meetings (every three months) are held to discuss the progress in the abilities of the trainees. In broad outline the trainees are evaluated in the three domains i.e. :

- Knowledge (Cognitive domain)
- Skill (Psychomotor domain)
- Attitude (Affective domain)

The procedure of the meeting on the evaluation is described in detail in the booklet on strategy of learning and teaching.

IX. Graduation

Graduation takes place after the objectives have been achieved. The gradu-

ates are returned to the Ministry of Health for further posting. The outstanding ones can be retained for further training as a teacher, subspecialist or researcher.

X. Continuing paediatric education

Paediatrics is a lifelong study. The continuing paediatric education can be acquired through :

1. Refresher courses
2. Attending seminars or conferences
3. Researches
4. Journal readings
5. Etc.

XI. Recruitment

The recruitment is done by a committee on recruitment. The criteria which must be fulfilled by the prospective trainees are :

1. Indonesian citizen
2. Age at the beginning of training not more than 40 years
3. Good physical and mental health as proved by a certificate from the Board of Health Examiners of the governmental officials
4. Experience as a doctor for at least 3 years

5. Good medical ethics, proved by a certificate from the Indonesian Medical Society and a certificate from his Alma Mater
6. Recommended by the Ministry of Health or Ministry of Education and Culture
7. Good undergraduate records.

XII. Feedback

The product of the system or the output is the newly graduated paediatrician. The output will interact with the society or in other words it will be evaluated by the society. The society is the suprasystem or the consumer. The result of the instruction of the output can be:

- The output will be accepted
- The output will be rejected
- The output will be accepted with some improvements.

The information must go back to the system as a feedback. This in turn causes changes in the system to improve the needs of the suprasystem. Another method of obtaining feedback is that the system should maintain a continuous evaluation of the output in the society. This cycle of feedback mechanism is absolutely necessary to make the system a problem solving one for the society.

REFERENCES

1. BANATHY, B.H. : Instructional system. Objectives of Postgraduate Paediatric Education (1975).
(Fearon Publ., Belmont, California 1968).
2. DEPARTMENT OF CHILD HEALTH, Medical School, University of Indonesia:
3. DEPARTMENT OF CHILD HEALTH, Medical School, University of Indonesia:

- Strategy of learning and teaching in post-graduate paediatric training (1975).
4. PROCEEDINGS of the Workshop on Postgraduate Paediatric Education, Indonesian Paediatric Society, Jakarta, 5-9 May, 1975.
 5. SUDIYANTO : Some important factors related to social paediatrics. Background paper in workshop on population dynamics. International Paediatric Congress, Buenos Aires, 1974.