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ASSIGNMENT REPORT ON  
NURSING ASPECTS OF PAEDIATRIC EDUCATION AND SERVICES, KERALA  
WHO PROJECT : INDIA 114/1

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## 1. INTRODUCTION

This project was concerned with the development of paediatric education and services in the Medical College, Trivandrum, with the assistance of WHO and UNICEF. It covered the Paediatric Department, the Children's Out-patient Department and the nurseries for newborns at the Sri Avittam Thirunal (SAT) Hospital, two maternal and child health centres within Trivandrum Municipality, and two health centres in the Rural Health Unit of the Medical College.

The objectives of the project and the commitments of the Government, WHO and UNICEF are mentioned in the plan of operations.

The first phase of assistance to the programme was from August 1958 to August 1959, when a WHO paediatrician was assigned.

The second phase, which included the nursing aspects of paediatric education and services, began in March 1962 with the assignment of the WHO paediatric nurse on a short-term contract. A national counterpart with post-graduate training in administration, theatre technique and management and experience in teaching was appointed on 19 March 1962. Others who have been closely associated with the project are:

- (1) The Principal of the Medical College
- (2) The Superintendent of the SAT Hospital, who is also the Professor of Obstetrics and Gynaecology
- (3) The Professor of Paediatrics
- (4) The Associate Professor of Paediatric Surgery
- (5) Paediatric tutors (Doctors) and resident medical officers of SAT Hospital
- (6) The Matron of the SAT Hospital
- (7) The staff of the Faculty of the Medical College School of Nursing
- (8) Sisters in charge of the paediatric wards and nurseries for newborns at SAT Hospital
- (9) The staff of the maternal and child health centres at Fort and Attipra

## 2. GENERAL BACKGROUND

Trivandrum is the capital of Kerala State and is densely populated. The health services in the city are administered primarily by the State Government. The municipality has developed, in recent years, a health service for women and children. Trivandrum is composed of urban and rural areas. Malnutrition, tuberculosis, gastro-enteritis, typhoid and diphtheria are prevalent health problems.

### 2.1 SAT Hospital

The SAT Hospital is situated on the grounds of the Medical College campus and comprises obstetrics, gynaecology and paediatric units. There is a separate building for the OPD, which is divided

between the three services. The part used for paediatrics had areas proposed for a premature unit, paediatric surgery, library, lecture auditorium and offices. There are 120 sanctioned beds for paediatric cases, but at the beginning of this phase of the project there were 160 beds and 163 patients, who were usually accompanied by mothers or other relatives. The Department consisted of two medical wards and one surgical ward. Infectious cases such as diphtheria, poliomyelitis, measles, whooping cough and typhoid fever were accommodated in side-rooms of the medical wards. A separate building constructed for antenatal patients had been handed over to the Paediatric Department for an Isolation Unit, but was not yet ready for occupancy. A recreation room had been converted into a paediatric surgical ward, as the former ward had been divided to make a connecting corridor to the new out-patient building. All of these factors made the administration of the wards very difficult.

The children's OPD had an average daily attendance of 400. Medical and surgical clinics were held daily and a tuberculosis clinic once a week. Specialists from the Medical College Hospital conducted clinics for ENT twice or three times a week and clinics for neurology and cardiology once a week. An ophthalmology clinic was attended once a week by the staff of the Ophthalmic Hospital. Casualties were attended from 11 a.m. to 6 p.m. in the Paediatric OPD and from 6 to 7 a.m. in the Gynaecology OPD. There were four beds for observation in which patients were not kept for more than 24 hours.

## 2.2 Nursing Service

There is a scarcity of nursing personnel, and the ward sisters are responsible for the routine duties on the ward as well as for the administrative duties. This reacts unfavourably on the nursing care given to the patients. The student nurses attended irregularly and were not used for service. Much time was spent by the staff in accompanying the doctors on ward rounds and in clerical work. Some of the staff were required to undertake duties for which they were not fully prepared. Also, nursing staff were required to do work which could have been done by less skilled personnel. Routine duties and ward policies for staff were inadequately defined.

There were generally adequate supplies of equipment on the wards and supplies from UNICEF in the stores, but there was an extreme shortage of linen. The dhobies came once in ten days or two weeks, and daily washing of linen was done on the wards by the cleaners. All the utensils used by the patients for eating, as well as baby bottles and small aluminium gordons used for feeding the babies, were brought from home. It was difficult to obtain repairs of equipment such as electrical goods, oxygen equipment and plumbing fixtures.

### 2.3 Nursing Education

The School of Nursing of the Medical College is an independent school with a separate budget from the Government's. The clinical field for the nursing students is the Medical College Hospital and the SAT Hospital. There are thirteen qualified tutors in the School, three of them with Master's degrees. The length of the course, including midwifery, is 3 years and 9 months. One class is admitted every year, and the student enrollment has been increased from 62 to 100. It is proposed to take 125 students next year.

Twelve hours of paediatric lectures are given during the second year by doctors, but there are no paediatric nursing lectures. Some lectures on paediatrics are included in other courses such as on nutrition, communicable diseases and nursing arts. The students have a study day once a week, but there are up to three hours of lectures on the other days as well. During clinical posting to the Paediatrics Unit, which is not regular, the number of lectures limits the students, clinical experience to about two hours a day. This interferes with the continuity of ward practice.

### 2.4 Peripheral Units

Of the four peripheral clinics mentioned below, the two urban ones are under the Municipality and the two rural ones are part of the Medical College Health Unit:

Pettah: This clinic is in an urban area about three miles from SAT Hospital, with four curative clinics and one for well-babies weekly. The average daily attendance is 350, with 40-50 new cases per day. The building consists of two rooms, poorly lighted, and there is no shelter for waiting patients. Equipment is limited.

Fort: This clinic is also an urban one, five miles from SAT Hospital, and also holds four curative and one well-baby clinic a week. Co-operation between the general clinic staff and the paediatric clinic staff is good. The average daily attendance is 200-250, with about 15-20 new cases. Many of the patients come from outside the area for curative treatment. There is also a nursery school at the clinic which takes children from 2½ to 5 years of age. There are 45 children and only one teacher.

Attipra: This clinic is in a rural area seven miles from SAT Hospital. In this clinic, the curative and well-baby clinics are held at the same time, twice a week. The average attendance is between 300-400, but most of the patients seen at the curative clinic come from outside the area. This is a very crowded centre and organization is defective. There is also no waiting space for the patients.

Cherivikal: This rural clinic is at a distance of three miles from the SAT Hospital, and in this clinic the well babies and toddlers are seen twice a week by appointment. About 50 well children are seen, and children registered at the well baby clinic who are ill are referred. The building is suitable and the clinic well organized, but it is to be moved to Pangapara, about ten miles from the Hospital, in the very near future.

All the clinics are expected to carry out home-visiting, immunization and health teaching programmes, but home visits are multiplied as staff of the maternal and paediatric sections and the family planning group all visit on a house-to-house basis. Follow-up care of the children and practical teaching are limited. The requirements of clinical duties lessen the time staff can devote to the mother and child.

A good referral system to SAT Hospital is evident in all the clinics.

### 3. THE PROJECT

#### 3.1 Specific Problems and Purpose

In order to develop the nursing aspects of the paediatric and neo-natal services in the SAT Hospital and the peripheral clinics and give good nursing care to the patients, it was necessary to have a good teaching field. This was difficult because of the shortage of personnel. The constantly changing staff meant much reorientation to the wards, and the mass transfer of staff in all departments of the hospital in June further complicated matters. Overcrowding in the wards and the physical set-up of the wards complicated the problems of administration.

The overcrowding of patients in the peripheral clinics made follow-up care of those children registered in the well-baby clinics difficult. The fact that several categories of personnel were visiting the same homes reduced interest in the family as a whole in favour of individuals needing special services.

The only statistics available led one to believe that there was a high attendance at the well-baby clinics, whereas most of the children counted came only for A & D capsules.

#### 3.2 Methods

##### 3.2.1 Nursing service

Initially the national counterpart and the WHO nurse made a survey of the existing areas and the prevailing staff pattern. A proposal was submitted for an increase in the number of staff to meet the needs of the patients.

As it was felt that the sanctioning of staff would take some time, it was necessary to make the best use of the staff available. To help the sisters in the administration of their wards, routine duties for all categories of staff were written and posted; trays and autoclaved sets for lumbar punctures and cutdowns were prepared and wards reorganized. The laundry of the Medical College Hospital was made available two days a week for the Hospital. More frequent deliveries of linen to the wards improved the cleanliness considerably. Arrangements were made for the painting of furniture and other equipment in the wards, and proper methods of cleaning were taught to the staff concerned.

The Surgical Unit was moved to the first floor of the out-patient block, and the administration of this unit improved.

The space set aside for the Premature Unit was occupied by the Surgical Unit, and it was felt that the reorganization and functioning of a complete premature department should wait until a nurse had been prepared to take charge of such a unit. In the meantime, a separate room was allotted at the end of the post-natal wards for premature babies and another separate room for sick babies. Routines and feeding schedules for these babies were written and posted, and the necessary equipment was made available for separate techniques. Mothers were very reluctant to have their babies in a separate room.

Since all caesarean babies need closer observation and better care, it was suggested that the cribs be moved nearer to the nurses' desk so that this could be facilitated.

On 23 July it was possible to open the Isolation Unit, as improvement of the ventilation of the unit had been effected. Diphtheria and typhoid patients from the medical wards were admitted; routines and policies were written and posted, and orientation given to the parents with regard to the children admitted.

### 3.2.2 Nursing education

Concurrently with the survey of the existing areas a study was made of the basic programme in the School of Nursing. With the agreement of the Director of the School, a programme was drawn up whereby each student would receive continuous clinical experience in paediatrics for three months during her second year. Lectures in the School were arranged after 3 p.m. in order to ensure continuity in this experience. Fifteen minutes were allowed for the student to leave the ward and reach the class.

A plan of rotation through the wards, the OPD and the Isolation Unit was prepared and posted in the wards. Regular nursing clinics, simple nursing care assignments and health talks by the students were introduced. Counselling of the students was done twice during the three months' course and an evaluation of their progress sent to the Nursing School.

Students were supervised by the national counterpart and the WHO nurse, and assistance was given to the sisters in their supervision of the students.

An outline for a combined teaching programme of paediatric and paediatric nursing lectures, approved by the Professor of Paediatrics, has been submitted to the Director of the Nursing School for consideration (Annex 1).

### 3.2.3 Other activities

The Co-ordinating Committee, the creation of which was agreed under the plan of operations and which began to function under the guidance of the WHO paediatrician, continued to meet quarterly to discuss the progress of the project.

Monthly project meetings with representatives from the medical and nursing staff of the SAT Hospital were established in order to discuss immediate problems and implementation of this phase of the project.

Bi-monthly ward sisters' meetings were started, to draw up routine procedures and policies and to discuss problems relating to the ward administration.

Regular meetings between the tutors in the Nursing School and the ward sisters of SAT Hospital were established, to foster co-operation between these staff and thus better correlate theory with clinical experience for students, which should result in better care of the patients.

### 3.2.4 Peripheral units

The clinics at Cherivical and Pettah have been closed. The two clinics at Fort and Attipra are being reorganized so that the following services may be made available to the families within the specified areas: distribution of milk and vitamins; medical examination of infants once a month and toddlers once in three months; regular nutrition classes to mothers; counselling during clinics; immunizations and vaccinations. As it is difficult to find completely well children, it is necessary to give both curative and preventive treatment in all clinics. A family folder has been designed and a simple filing system devised, with the help of the Medical Records Librarian from USAID, attached to the Medical College Hospital. There is less overcrowding in the clinics now, because children no longer come from outside the prescribed area for curative treatment.

A UNICEF Bedford van was provided for the use of the WHO nurse, her counterpart, the doctors and staff at the various clinics, and for carrying drugs and vaccines from SAT Hospital to



the centres. Much overtime work has been done willingly and patiently by the driver.

4. ACCOMPLISHMENTS AND ASSESSMENT OF RESULTS

On such a short assignment it is difficult to assess the permanency of the work accomplished, but the writers feel that some progress has been made towards establishing an improved teaching field for all categories of students. It was possible to reduce overcrowding in the wards by keeping the number of beds at 120, moving the Surgical Unit to the out-patient block and opening the Isolation Unit. But, with the opening of the Isolation Unit, the staff was reduced on the other wards and changes of staff continued to be necessary, owing to illness and leave. The administration of the wards was made easier by the posting of ward routines and policies, setting up of trays and having autoclaved sets always ready for use by the doctor.

The ward teaching programme was planned to cover three months, but it will not be possible to carry out the plan satisfactorily until a change in the programme permits the students to stay in the unit for a continuous period of three months. There has been improvement in the nursing care of the patients since a planned rotation of nurses was established.

A beginning has been made in the preparation of the training field at the centres. The writers feel that more guidance should be given to the health visitors and midwives, to improve the effectiveness of patient teaching. The home visiting programme should be planned to prevent so many specialized workers visiting the same family. As soon as the clinics are well established under the new care plan and the out-patient department has been closed, the nursing students will benefit from an experience in these areas.

5. RECOMMENDATIONS

It is recommended:

- (1) That the national counterpart continue to be responsible for the overall nursing aspects of the project, but specifically for the teaching of all categories of students assigned to the paediatric wards, the out-patient and new born nurseries at the SAT Hospital and the peripheral clinics outside the hospital.
- (2) That a supervisory post be established to assist the Matron of the SAT Hospital in administration and supervision of the Paediatric Department.
- (3) That every effort be made to acquire nurses to fill the posts sanctioned in April 1962 and to obtain sanction for the additional staff proposed to the Director of Health Services.

(4) That when more staff are appointed, permanent relief nurses be assigned to specific areas within SAT Hospital to ensure the smooth administration of the wards when other staff members are ill or on leave.

(5) That personnel who have had special preparation for their particular posts be retained in them as long as possible.

(6) That the clinical experience established for the nursing students be maintained with regard to their hours of work on the wards. When the number of students posted to the wards is increased next year, their experience should be increased by including night duty and experience in the paediatric clinics.

(7) That some responsibility for the supervision of these students be assumed by the tutors in the Nursing School.

(8) That, if it is possible to increase the number of paediatric nursing lectures, this should be included in the next course in paediatrics.

(9) That the health visitor in the Paediatric Department of SAT Hospital be replaced by a public health nurse.

(10) That the midwives in the paediatric clinics be replaced by health visitors, public health nurses and public-health-orientated nurses.

(11) That home visiting in the centres be arranged in such a way that all family members, and not only individual children or mothers, are included.

## 6. PREDICTIONS FOR THE FUTURE

The writers feel that the progress made in the past six months augurs well for the future establishment of a good teaching centre for paediatric nursing. Further international assistance may be necessary to retain the gains made by the project.

## 7. ACKNOWLEDGEMENTS

The WHO paediatric nurse would like to express her appreciation of the support and co-operation given to her by all the members of the staff of the SAT Hospital, the peripheral clinics and the Nursing School of the Medical College. She would also like to express her thanks to her national counterpart whose untiring effort in all phases of the project has made possible the progress that has been made. It is hoped that her continued effort will bring about the firm establishment of this programme.

Proposed Course Outline for Instruction in Paediatric Nursing

Objectives

1. To help the student nurse understand the normal growth and development of children.
2. To help the student nurse understand the principles of child care which promote good growth and development.
3. To help the student nurse understand the prevailing factors which affect the welfare of children in India.
4. To help the student nurse acquire knowledge and skill in giving intelligent care to the children who are ill.
5. To help the nurse understand her role and responsibility in teaching the parents about the needs of their children.

This course outline should be supplemented by clinical teaching while the student is having her practical experience.

Unit I. Introduction

1. Introduction to Paediatric Nursing
  - history of paediatric nursing
  - modern concepts of child care
  - the paediatric nurse
- \*2. Preventive Paediatrics
  - factors which contribute to illness in children
  - preventive paediatrics, both physical and psychological
  - immunization and the part it plays
- \*3. Paediatric Background in India
  - family
  - socio-economic background
  - environment
  - nature of disease in children (health problems)
  - method of teaching

Unit II. Growth and Development

1. Normal Growth and Development
  - physical
  - mental
  - emotional
  - spiritual
  - social
2. Stages of Growth and Development
  - pre-natal
  - neo-natal
  - infant
  - toddler and pre-school
  - pre-adolescent
  - adolescent

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\* Material to be taught by doctor.

Unit III. Nutrition

1. Breast Feeding and its Significance
  - stress upon the advantages and mothers' dietary needs
2. Artificial Feeding and its Significance
  - indications, cost
  - kinds and recipes
  - precautions
3. Meeting the Growing Children's Nutritional Needs
4. Introduction of Solid Foods
  - special considerations: economy and religious factors

Unit IV. Management and Nursing in Illness

- \*1. Management of Nutritional Disorders
  - kwashiorkor
  - malnutrition
  - marasmus
- \*2. Management of Nutritional Disorders and Associated Deficiencies
  - anaemia
  - vitamins A, D, and C.
3. Nursing Care in Nutritional Disorders
- \*4. Management of Gastro-Intestinal Infections in Children
- \*5. Management of Worm Infestations in Children
6. Nursing Care in Gastro-Intestinal and Worm Infestations
7. Nursing Care in Hyperpyrexia and Associated Conditions
  - convulsions
  - unconscious child
  - vomiting
  - dehydrations
  - diarrhoea
- \*8. Management of Tuberculosis Infections in Children
- \*9. Management in Respiratory Infections
10. Nursing Care in Children with Respiratory Infections and Tuberculosis
11. Nursing Care in Nephritis and Acquired Heart Disease

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\* Material to be taught by doctor.

12. Nursing Care of Children during Repair of Congenital Deformities
  - hare lip & cleft palate
  - pyloric stenosis
  - abdominal surgery - appendicitis
    - abdominal obstruction
13. Nursing Care in Miscellaneous Conditions
  - scabies, pediculosis, impetago
  - emergency conditions such as shock and foreign bodies.