

RURAL RESIDENCY COURSE IN THE FACULTY OF MEDICINE
UNIVERSITY OF GEZIRA, SUDAN

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Abstract The Faculty of Medicine, University of Gezira, Sudan is adopting an innovative, integrated, problem solving and community oriented curriculum with emphasis on rural health and primary care.

The rural residency course is offered to expose the students to the realities of the rural communities in Sudan. Through living with the doctors in rural areas they experience shouldering their responsibilities. The course proved to be very popular among students who achieved most of its objectives. The problems encountered in course planning, implementation and students evaluation are presented. It is hoped that the course will help, with other courses in preparing the students for performing their rural assignments and duties properly and appropriately. The exchange of ideas from readers about the Faculty of Medicine and the rural residency course particularly about students evaluation is invited.

Key Words Integrated, community oriented - problem solving, rural health, Residency/rural - Primary health care, evaluation/student.

INTRODUCTION

Traditional (classical) medical schools share many similarities which often hinder their progress and development. They are built on rigid departmentalization with little or no interdepartmental cooperation and collaboration. The curriculum is clearly divided into basic sciences taught at first, followed by clinical subjects

taught in almost complete isolation from basic sciences. The curriculum may be a carbon copy of other medical schools and not specifically geared towards the local health problems. Students are passive and evaluation is subjective and may depend on one final examination.¹

The Faculty of Medicine University of Gezira, Sudan is a new school adopting a fully integrated, problem solving, community oriented curriculum. All activities are centered around the students who are actively involved in the whole process. There is maximum cooperation between the different disciplines. The preparation, implementation and evaluation of all the courses is a team work and a team product. No single person or discipline is entrusted with that. Evaluation of students is a continuous process and is highly objective. The whole curriculum is geared towards the identification and solution of the major health and health related problems of the Sudanese community.²

The courses (teaching units) run in blocks which can be as short as two weeks or as long as 14 weeks. The duration of the study is 5 calendar years (equivalent to six academic years, utilizing part of the summer vacations).

BACKGROUND INFORMATION

The Sudan is the largest country in Africa with an area of one million square miles. It is a poor developing country showing most of the features of "Developing Countries Syndrome" such as high birth rate, high infant mortality rate, high illiteracy rate and low capital income. More than 70% of the population live in rural areas.³ They suffer from many health and health related problems aggravated by poor environmental sanitation, poor nutrition, ignorance and inadequate health coverage. More than 75% of practising doctors work in cities serving only 20% of the population. The Ministry of Health requires all government doctors to work for one year in a rural area as a pre-requisite for post graduate studies.

This is working fairly well as far as motivating doctors to work in rural areas. However, those doctors were not adequately trained and prepared to carry out this rural assignment properly.⁴ They received their training in big teaching hospitals in cities where a complete health team is working with adequate medical equipments, instruments and supporting services. The morbidity patterns seen in such hospitals is markedly skewed towards the complicated, rare or exotic medical problems grossly unrepresentative of what is actually prevalent in the community. A doctor trained in such teaching hospitals and working in a rural area for the first time is at a very disadvantageous situation. He is usually the only doctor in charge of the rural hospital and all other health facilities in the area which are short of staff & equipment in addition to many other problems. The doctor is responsible for the planning, management and evaluation of the health services in the area. He is not trained to perform these management and organization duties. His orientation during the training in the teaching hospital is mainly towards secondary and tertiary medical care. If primary health care (PHC) is ever discussed it is mainly centered around treatment. The other components of (PHC) are not adequately covered.⁵ The urgent and real need for the rural communities is for comprehensive PHC.

SOME MEDICAL SCHOOLS EXPERIENCES

Some traditional medical schools tried to bridge these gaps by organizing episodic field trips for students to rural areas to expose them to the problems of these areas. The activities in these trips are not usually well structured; their objectives are poorly defined and have minimal or no weight in the final evaluation of the student. No wonder then that they are viewed as tours and picnics for fun rather than for serious study.⁴ In India graduates of some medical schools expressed that their training as students did not prepare them to practise independently particularly in rural areas. These medical

schools attempted to rectify the situation by designing a rural internship for students after graduation.⁶ In Nigeria one medical school designed a village community based, problem solving program to better prepare their students for the future responsibilities.⁷

THE RURAL RESIDENCY COURSE

This is a four weeks course offered during the summer which follows Semester 6 after the students have finished studying the systems of the human body in an integrated manner in addition to the thematic courses.

A Committee was selected to prepare the course in the usual format. The author was the coordinator of the Committee.

RATIONALE/JUSTIFICATION FOR OFFERING THE COURSE

More than 70% of the population live in rural areas and hence attention should be directed to these areas. Medical students are usually trained in teaching hospitals in urban areas where:

- a) hospital staff, equipments etc are usually adequate.
- b) morbidity patterns are usually the rare, complicated and exotic cases and
- c) little or no management and administration skills are practised or taught, to students.

The Rural Residency course is offered to expose the students to the realities of a rural community, and to the nature of the activities and responsibilities of the physician in a rural area.

COURSE OBJECTIVES

The course objectives will be attained by students observing, helping or personally performing different activities in the :-

- (1) rural hospital
- (2) other health facilities in the area.
- (3) community by carrying out a survey about a health or a health related problem.

In the rural hospital the student observes, helps or performs different clinical and laboratory procedures and tests in a real life situation with all the limitations of a rural hospital setting in a poor developing country. The student also lives with the doctor; his responsibilities in patients care, health service administration, personnel supervision, in service training and staff welfare.

The student visits and participates in the delivery of the services provided by other health facilities in the area such as dressing stations, dispensaries, health centres and health offices. These activities are expected to help students to realize that health care is delivered in different facilities and settings by different health categories, known as the health team. Respect and cooperation among the health team members is vital for improving the health status of individuals and communities. The work of the doctor in a rural area should not be only hospital centred and disease oriented.

In the community the student carries out a field survey on health or health related problem. This trains students in designing and conducting applied research to solve a problem facing a community. This is best done by going out to people rather than waiting for some of them to come to you in the hospital. You deal with the whole problem from its roots rather than dealing only with the tip of the iceberg in the hospital.

COURSE IMPLEMENTATION PREPARATORY PHASE

The central and regional ministries of health were contacted and course objectives were discussed with them. They warmly welcomed the project and granted permission to make use of the rural hospitals in the country which

belongs to them. They informed all the participating hospitals asking them to offer every possible help. The doctors in the selected hospitals were contacted and the course outline and objectives was sent to them. Local Community leaders were contacted and their support and help was secured. The University provided transportation and food allowances for students. Accommodation was arranged by the hospital's authorities, the community leaders and some relatives of students living in the rural areas.

An orientation workshop for students was organized prior to students departure to the hospitals. Government health officials participated in the workshop which discussed:

- a) course objectives
- b) students evaluation
- c) administrative and logistical matters
- d) preparation of students for the rural residency course by giving background information about the health, socioeconomic and socio cultural characteristics of rural areas in Sudan. Methods of data collection, interpretation, presentation and report writing were presented and discussed with emphasis on questionnaire design and communication skills.

The rural residency course was offered for the first time in the summer of 1981 where 42 students freely chose 30 rural hospitals and communities in 6 different provinces in the Sudan. They submitted 42 reports about the surveys they carried out individually. 13 reports (25%) were on local endemic disease, 9 (21.4%) about social and health related practices, 7(16.7%)on nutritional problems and K.A.P. studies 7(16.7%) on health facilities and services and 6(14.3%) on environmental health.

When asked whether the course helped in preparing them for their future responsibilities as doctors in rural areas, 28 students (66.7%) said the course prepared them to a great extent, 12(28.6%) prepared them to some extent

and 2 students (4.7%) did not respond. The 4 weeks period was about the right duration of the course as seen by students. However, some problems were encountered during course planning, implementation and in students evaluation.

PLANNING AND IMPLEMENTATION

Sudan is the largest country in Africa with poor transportation and communications network. Some students had to travel for 10-14 days to reach their assigned hospitals. Some students complained from the accommodation arranged for them and all students complained that the food was not adequate.

The rural hospitals and the staff working in them belong to the ministry of health and some of them may view supervision or helping students as extra work on them without genuine reward. There is a rapid turnover of doctors in rural hospitals and hence you have to work each time the course is offered with new doctors.

STUDENTS EVALUATION

This was set originally as follows:

1. 20% for the performance record sheet. Here the students list all the objectives attained. The doctors in the hospitals have to sign that making sure the students filled in the information correctly.
2. 20% for the doctor's report which covers student punctuality, responsibility, attitude and behaviour, social and community activities and his relation with the health personnel in the area.
3. 60% to the student report covering title, introduction background information, materials and methods, results, discussion, recommendations, acknowledgements and references if any.

At the end of the course some students complained that the performance record sheet and the doctors report are subjective tools and depended to a large extent on the

student-doctor personal relation. They claimed that some students listed objectives they never performed and the doctor signed that for them. Some students had enormous help in designing, conducting field assignments and during analysis and writing of reports, from the doctors and other health staff. Other students were not so lucky. These allegations of lack of standardization of the evaluation conditions and the elimination of subjectivity made just and proper student evaluation difficult. The University regulations grading system ranges from A(excellent) to F(failure) and can not be only on pass / fail basis.

After lengthy discussion the course coordinator was asked to evaluate the students by an additional tool which is an oral examination covering the students performance record sheets, certain elements in the doctors report and detailed discussion of the design and findings of the field survey. The aim was to try to judge whether a student has really performed the objectives he listed and whether he knows how to plan and conduct surveys and write scientific reports about them, and to judge whether students knew what they were doing and the problems they encountered. There were no significant differences in the students performance in this (oral) examination.

SUGGESTIONS

Some of the problems faced could be solved by choosing rural hospitals from around the vicinity of the medical college where transportation is easier and teaching staff can make repeated visits to supervise and guide students. Participating doctors from the rural hospitals can be invited to attend the students orientation workshop before the beginning of the course. Their role in students guidance and students evaluation can be clarified. They will also provide valuable information about their hospitals and areas, availability and suitability of accommodation and transportation. It is also a good opportunity for the course organizers to assess the suitability of

the doctors for supervising the students. Some form of incentives for participating doctors need to be adopted to reward the good and cooperative doctors.

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FACULTY OF MEDICINE
UNIVERSITY OF GEZIRA

PERFORMANCE RECORD SHEET (IN HOSPITAL ACTIVITIES)

COURSE 422 : RURAL RESIDENCY
STUDENT NAME : _____
DOCTOR NAME : _____
HOSPITAL : _____

Objectives	Observed objective	Performed objective under guidance	Performed objective independently	Doctor's signatures
<p style="text-align: center;"><u>LAB.</u></p> <p>1. <u>Test urine for:</u></p> <ul style="list-style-type: none"> a. Turbidity b. Sugar c. Acetone d. Bile pigments e. Albumin f. Casts g. Pus cells h. K.B.Cs i. Shaematobium ova <p>2. <u>Test stools for:</u></p> <ul style="list-style-type: none"> a. Consistency b. Colour c. Odour d. Pus cells e. R.B.Cs f. Mucous g. Parasites (State which) <p>3. <u>Test blood for:</u></p> <ul style="list-style-type: none"> a. Malaria b. Hb. estimation c. W.B.C T D d. E.S.R. e. Grouping f. Cross-matching 				

Objectives	Observed objective	Performed objective under guidance	Performed objective independently	Doctor's signatures
<p>1. <u>Test sputum for:</u></p> <p>a. Colour</p> <p>b. Odour</p> <p>c. AFB</p> <p><u>PROCEDURES:</u></p> <p>1. Parenteral therapy (I.M., I.v., I.D., S.C.)</p> <p>2. Blood samples from children</p> <p>3. Blood samples from adults</p> <p>4. Venesection in children</p> <p>5. Venesection in adults</p> <p>6. Nasogastric tube in children</p> <p>7. Nasogastric tube in adults</p> <p>8. Rectal tube in children</p> <p>9. Rectal tube in adults</p> <p>10. P.R. examination in children</p> <p>11. P.V. examination in adults</p> <p>12. Obstetrical examination</p> <p>13. Incise abscess</p> <p>14. Dress wound</p> <p>15. Suture wound</p> <p>16. Immobilize fractures</p> <p>17. Apply and remove plasters</p> <p>18. Fill in birth certificates</p> <p>19. Fill in death certificates</p> <p>20. Fill in police form (8)</p> <p>21. Work with para-medical</p>				

FACULTY OF MEDICINE
UNIVERSITY OF GEZIRA
PERFORMANCE RECORD SHEET
OUT OF HOSPITAL ACTIVITIES

COURSE-422 : RURAL RESIDENCY
STUDENT NAME : _____
DOCTOR NAME : _____
HOSPITAL : _____

Objective	Done under guidance	Done independ- antly	Not done	Doctor's signature
. Visit health centres				
. Visit dispensary				
. Visit dressing station				
. Visit primary health unit				
. Visit environmental health office				
.1 Refuse collection and disposal				
.2 Sewage collection and disposal				
.3 Slaughter house				
.4 Mosquito control				
.5 Food and water hygiene				
6 Others (state)				
Attend court (medical evidence)				
Conduct survey in community				
Participate in community activities				
Others (state)				