country. What are the types of assignments our graduate nurses take up abroad? How many go for higher education or training ? How many hope to return?

High Level Nursing

A study of the pattern of utilisation of Nursing personnel, including graduates, at the Willingdon Hospital in New Delhi in 1973, carried out by the Institute of Applied Manpower Research revealed that sisters in wards, emergencies, and OPD, spend less time on direct and indirect patient-care, and that more time is spent by them in activities such as recording, attending to stores laundry work, and other miscellaneous work. The overall utilisation of sisters to the extent of 77 percent in wards, 80 percent in emergencies, and 81 percent in OPD was considered unsatisfactory. Besides, sisters in wards and emergencies were spending 20 percent and 16 percent of their time on "offstation" activities which appeared to be on the high side. The report suggested that the present system of the supply and accounting of drugs be reviewed, and the possibility of reducing offstation activity be examined so that sisters' time and skill are utilised more effectively.

Exclusive information regarding the utilisation of graduate nurses is not available at present. The Division for Scientific and Technical Personnel, Council of scientific and Industrial Research, New Delhi, has been enrolling graduate Indian nurses, who have been abroad for study, training or employment, in the Indians Abroad Register. Persons with high qualifications and valuable experience are offered temporary placements in the Scientists' Pool until they are absorbed in regular posts in India.

The General Register of Scientific and Technical Personnel maintained by this Division has the particulars of about 300 graduate and post-graduate Indian nurses. Persons with degrees in hospital administration or nursing administration are also registered. The data in the National Register form the base for various studies regarding availability and utilisation of qualified personnel in the country in different specialities. Bio-data of registered persons are also supplied in response to specific enquires from employing organisations, for acting as experts, for appointment to suitable position, etc.

This Division has recently started a study of Graduate Indian Nurses, to assess objectively their organisational and locational distribution, utilisation, activities, and other characteristics. Views of nurses, nursing administrators and nursing teachers regarding their working conditions, improvement in the syllabus for the B.Sc. and M.Sc. courses, better utilisation of their services, and career planning have also been solicited. Bio-data and views of persons holding B.Sc. Nursing and M.Sc. Nursing degrees are being collected and processed for an in-depth study. Principals of nursing colleges in the country have been contacted for their views on nursing education and for data regarding outturn of graduates and post-graduates in nursing. The study is in progress, and a report thereon is expected to be ready in a few months. In order to make the study as broad-based as possible, it is requested that those graduate nurses who may not have been contacted so far because of non-availability of address, or who have not filled in the cards sent to them, furnish requisite information. Cards are obtainable from : Division for Scientific and Technical Personnel, C.S.I.R. Complex, Library Avenue, Pusa, New Delhi 110 012.

AN EXPERIMENT IN CURRICULUM CHANGE

Miss ALEYAMMA P. KURIAN

The purpose of this study by Dr. Aleyamma Kurian, Principal, School of Nursing, Kolar, Karnataka, was to identify factorsthat facilitated or hindered the implementation phase of the curriculum change introduced in Christian School of Nursing under the Board of Nursing Education of the Christian Nurses' League of the Christian Medical Association of South India.

TWENTY faculty members and ten principals of the ten schools which introduced the new curriculum proposed by the Board of Nursing Education participated in a study by filling in a questionnaire. Information also was collected from the five schools which did not implement the new curriculum in order to identify those forces which hindered the change in the five schools.

The conceptual framework for the study was the concept of Kurt Lewin of the mechanism of the process of change and force-field analysis of social change applied to curriculum change and the concept of Gordon Mackenzie of the participants and focal points of curriculum change.

The findings of the study revealed that the changes made in the curriculum were those which were made in arrangement of number of hours for classes and rearrangement of the courses as had been presented in the curriculum. No attempt was made to introduce new content or institute a total change in curriculum.

Focal Points of Change

Factors which affected the implementation phase of change were those which were related to the organization as a whole, or to the personnel or external participants as focal points of change.

It was found that the application of Lewinian theory to the process of curriculum change was useful in understanding the process of change and controlling the change process. But it was difficult to identify the stages of change, especially at the individual respondent's level. Force-field analysis was found to be a useful tool in identifying in a systematic way the forces that might influence the change process in curriculum.

Mackenzie's concept of the participants in a change and focal points of change helped in recognizing what changes accrued in the curriculum, but it did not help to understand the complexity of the change process.

Implications and recommendations are given in the last chapter of the study. It is hoped that this study will contribute to an increased understanding of the change process and factors influencing the process so that it will be possible to manage change in nursing education more skilfully in the future.

The fact that all church-related schools that implemented the "Two-Plus-One" Programme participated in the study makes it possible to generalize related to factors that facilitate or hinder a change process in curriculum at least in other church-related schools in India. It was also found that the factors reported to be influencing the implementation of the revised curriculum in South India were similar to the findings of the study reported by Gross and others.

The findings suggest that any attempt to change curriculum in nursing education or any other area should begin with a comprehensive strategy whieh takes into account all elements of that strategy : the organization, personnel, administrative support, and the innovation itself. The innovation should be tried at the local level even when it was planned at the higher level at the board.

What should be the relationship of curriculum change in nursing to that of general education ? With the emphasis in India on the need to move nursing education into the university, there is also need for relating the two curricula or to see one as a part of the other. Nursing education must be aware of the changes and patterns of general education so that professional education can be built on the broad and firm foundation of general education–liberal education–to develop competent professional nurses.

Another important implication of this study is the need for schools of nursing to be independent in operation, especially by having a separate budget and charging students for the cost of education. The strong interdependence of nursing school and nursing service in church-related schools evident in the study can be made use of, providing sound clinical learning for students, at the same time being conscious not to sacrifice the learning needs of students for the care of patients in the hospitals.

At Individual School Level

Yet another implication of this study is the need evidenced as a result of this study for considering change in curriculum at the individual school level, a diversion from the traditional pattern in India of "handing down the curriculum from the top." The curriculum should be planned to fit the students and not students being fitted to the curriculum. Planning for change in curriculum must be done by all concerned with the change : faculty, principals, students, consumers of health care, and the board. Curriculum revision is a democratic process and must have participation of all concerned with the curriculum.

It is hoped that with the implementation of the new curriculum the administrative committee and the medical superintendents related to the hospital schools in India would realize the importance of giving freedom and independence for the principals and faculty of schools to make decisions regarding nursing education. The practice of having medical superintendents in administrative charge of schools of nursing is to be condemned.

The management of the school has to be responsible for providing the necessary environment for change to take place, such as providing clear instructions to the staff regarding the process, rearranging prevailing organizational arrangements that are incompatible with the innovation, training staff with the required skill and knowledge for change, providing necessary equipment, maintaining open channels of communication between staff and supervisory personnel, and providing feedback regarding progress.

Curriculum innovation is a continuous process. The management of the school has to be aware of this need and should provide for continuing inservice education to stimulate continued curriculum development. There should be orientation for the new staff who join the school. Cooperation and mutual respect among faculty can be developed, perhaps, with the introduction of team teaching.

The analysis of the trends of curriculum revision in nursing education in India revealed that change is made often by adding new subjects without giving much thought to the organization of the total curriculum. It is high time for nursing educators in India to think of possibilities of a new curriculum with increased number of integrated courses organized around unifying concepts. Provision for continuous evaluation and feedback mechanism could be built into the curriculum. As new knowledge, trends, and technology emerge, the curriculum must be re-examined and updated to prepare nurses who would fit into today's society and into the future.

In any case it is clear from the investigation that a thorough study of the nursing curriculum for diploma course in nursing in India is needed to re-examine the relevance of the present contents in curriculum in the light of the changing concept of nursing, the total health care of clientele and not the care of patients as the focus of medical care. Further, there is need for study of the clinical experience provided to the students in the light of learning theories and application of these to the process of nursing care. The criticism of most of the participants in the study that the students would not get enough clinical experience according to the new plan is baseless. How much practice and what type of practice is needed and where to practise are some of the questions which need to be raised in relation to the clinical teaching and learning.

What difference or similarity should there be in the curriculum of B.S., diploma, and auxiliary nurses? What should be the length of the programme for diploma in nursing education? Is third year of training the appropriate time for internship when all students who complete the training work in the hospitals affiliated with schools for one year as staff nurses before they go out to other hospitals or health agencies for employment? Should the length of the programme be reduced to two and one-half years instead of three and plan for clinical instruction along with class-room teaching as in integrated practice? These are areas in which further study is indicated.

Recommendations

1. It is recommended that this study should be repeated at the end of three years, July 1976, after introducing the new curriculum in order to make a better evaluation of the mechanism of the whole process of change. This study concentrated on the chang-

ing stage (implementation) of the curriculum. Forces hindering implementation need to be reduced and those fa cilitating it need strengthening.

2. Investigations must be carried out in the area of clinical learning of the nursing students in the mission hospitals to make it possible to avoid unnecessary hours of practice which may be irrelevant to the purpose of the programme, and practice not based on sound learning principles.

3. There is need for preparation of faculty in planning and development of curriculum through inservice education or workshop at the Board of Education so that better standards would be maintained in the schools. Curriculum development should be a combined effort of the schools and the board.

4. Further appointment of teachers of nursing should consider their preparation at the B. Sc. level with thorough preparation in teaching and curriculum.

5. A study is recommended of the present curriculum for relevance of the subject matter and clinical learning in the light of the need of diploma nursing students. There is need to look deeply into the present curriculum (total), which could enable significant change.

6. A comparative study of the curricula of the three programmes in nursing, namely, degree, diploma, and auxiliary nurse preparation, should be undertaken to specify the difference in the type of preparation and practice.

7. There is need for appointment of clinical instructors in all the schools for teaching in clinical areas. There should be adequate numbers of staff nurses in the hospital to care for patients.

8. The opinion of the students should be taken into consideration before making further changes in curriculum.

9. It is recommended that there should be adequate and proper communication between nursing staff of the hospital and school regarding change because of the influence the nursing service personnel have on learning experiences of students.

10. It is recommended that better resources, such as library facilities, audiovisual aids, and other facilities, should be available for teachers to improve their teaching methods.

Replacement Copies !

A number of copies of December issue of the Journal have been sent back to us without wrappers containing addresses of subscribers. Those who have not received their copies may write to us immediately for replacement copies.

Business Manager

A COMMENDABLE EXAMPLE

A. K. PANJA

Mr. A. K. Panja, Minister for Health and Family Planning, West Bengal, gives here the experience of his State as a pathfinder for other areas in the country to meet the challenges in the field of health services and their management.

A WELL-KNIT organisation for rendering nursing to the people of the State—as we now see today—was nowhere near its present shape in the years preceding the Independence. There were very few hospitals under State control. Fewer still were trained personnel including trained nurses. Untrained nursing aides covered a vital area of patient care—with many things left to be desired. There being nothing of the State's participation in the production of trained nurses, a private organization, viz., The Calcutta Hospital Nurses' Institute was the only source feeding the two premier hospitals in the city, the Medical College Hospital and the P.G. Hospital (now Seth Sukhlall Karnani Memorial Hospital). The rest of the hospitals in the city and the State had to depend mainly on untrained nurses.

Spurt after Independence

With Independence there was a spurt in the development of social services in the country. West Bengal did not lag behind. Health Services made rapid strides in this State and 'nursing' as a profession came to the fore of women's participation in the programmes for the well-being of the community. Women all over the world have traditionally been the storehouse of the nation's sense of piety, love and self-sacrifice. The Indian women were not an exception. Nor was their Bengali counter-part. The call to the Bengali womanhood to join the nursing service for tending the sick and the ailing did not go unheeded. The State provided the inspiration by appointing for the first time a woman as the Superintendent of Nursing Services at the headquarters. The seed of the Nursing Organisation in its present form was sown.

In 1957 "revolutionary" changes were made in the service conditions of the nurses. Regular scales of pay were prescribed for different categories of trained nurses. Amenities unknown to the other State employees were sanctioned having regard to the difficult conditions in which the nurses have to serve. A number of junior and senior nurses' training schools were brought into being. Regular training programmes were drawn up, so that a trained nurse could be a finished product covering all the disciplines of nursing. Then followed a tireless programme of feeding the health services with trained nurses at every level. A well thought out yardstick was prescribed for