

FAMILY PLANNING
IN THE EDUCATION
OF NURSES
AND MIDWIVES

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PREFACE

The importance of family planning as an integral part of family health services, particularly maternal and child health care, has been increasingly recognized in recent years. At the present time, most of the countries throughout the world are interested in or have launched family planning programmes. One of the determining factors in the setting of realistic family planning goals is the rate at which health personnel are enabled, through education and training programmes, to acquire the knowledge, skills, and attitudes necessary to their effective participation in the planning, programming, and delivery of family planning services.

The present guide is based on a collection of papers prepared by experts at the invitation of WHO and on a number of additional contributions by WHO staff members. A first draft was circulated to all the contributors and to a number of other reviewers (see page 49) and some of them were invited to Geneva for discussions. In accordance with the suggestions made, the guide was extensively revised and a review of the literature and a comprehensive bibliography were added. The editorial work for this revision was undertaken by Miss Lily M. Turnbull and Mrs Helena Pizurki, Health Manpower Planning, Division of Health Manpower Development, WHO.



INTRODUCTION

The concern of nurses and midwives with individual, family, and community health has led to their increasing interest and involvement in health services related to family planning, human reproduction, and population dynamics.¹ "Family planning is a way of thinking and living that is adopted voluntarily, upon the basis of knowledge, attitudes, and responsible decisions by individuals and couples, in order to promote the health and welfare of the family group and thus contribute effectively to the social development of a country."² It refers to practices "that help individuals or couples to attain certain objectives: to avoid unwanted births; to bring about wanted births; to regulate the intervals between pregnancies; to control the time at which births occur in relation to the ages of the parents; and to determine the number of children in the family. Services that make these practices possible include education and counselling on family planning; the provision of contraceptives; the management of infertility; education about sex and parenthood; and organizationally related activities such as genetic and marriage counselling, screening for malignancy, and adoption services".³

It has been shown that repeated and closely spaced pregnancies result in nutritional depletion of the mother and interrupted lactation, with adverse consequences for the health and stability of the entire family. Studies are under way to quantify the beneficial effects (i.e., the reduction in mortality and morbidity among mothers, infants, and young children) that derive from the availability of methods of spacing and limiting pregnancies.⁴ As a corollary, it is assumed that a reduction in infant and child mortality will give parents a reasonable assurance that the children they already have will survive. With such an assurance, they can afford

¹ In the interest of brevity, the term "family planning", as used in this publication, will usually refer to family planning, human reproduction, and population dynamics.

² *Wld Hlth Org. techn. Rep. Ser.*, 1971, No. 483, p. 5.

³ *Wld Hlth Org. techn. Rep. Ser.*, 1971, No. 476, p. 8.

⁴ For other relationships between health and family planning goals, see *Wld Hlth Org. techn. Rep. Ser.*, 1971, No. 476, pp. 13-17.

to make an emotional commitment to those children and to adopt fertility regulating practices.

Reductions in infant and child mortality and morbidity cannot be achieved by family planning alone. To be effective, this aspect of care must be integrated with services leading to adequate medical care, improved nutrition, immunization against childhood diseases, improved child rearing practices, the provision of potable water, and improved sanitation. The integration of services is also the way to ensure both the broadest coverage of the population at risk and the most efficient and effective use of a single network of personnel, facilities, supplies, and transportation. The integration of services cannot, however, be achieved by individuals or by individual disciplines working in isolation. It requires a team approach in the context of the health team and, in turn, of the nursing team as described below.

TEAM APPROACH TO FAMILY HEALTH SERVICES

The development of the team concept for the delivery of health services is a response to the realization that the care of individuals, families, and communities is a complex procedure that requires a variety of skills. The manner in which such skills are combined, in terms of the types of health workers and the level of competence needed to deal with a specified health problem, is of paramount importance. The proper mix and fit of skills will ensure that the functions of one member of the health team do not grossly overlap those of another and that a necessary skill is not omitted.

Equally important is the element of team leadership. Where each member of a team understands and respects the functions of the others, the team represents a multiple partnership rather than a hierarchy — with each member participating to his full capacity and with team leadership shifting to that member of the team who represents the greater competence in the particular area of decision or action demanded by the health problem. For example, when the problem is one that demands primarily skills in diagnosis, medical treatment, and evaluation of patient progress, the physician will take the leadership; when the problem is one that requires primarily competence in health counselling, the physician may defer to the skills of the nurse or midwife; where deeply rooted family problems stand in the way of care, the social worker may assume major responsibility. Whatever the arrangements for the assignment of responsibilities, they should ensure a fine balance between, on the one hand, the provision of the most comprehensive service by each worker involved and, on the other hand, the maintenance of control by each of the several disciplines involved over its respective profession. Such a balance can be achieved only when well defined channels of communication are established, when each discipline participates in the development of objectives and plans of action and in the definition of functions and responsibilities, when each discipline interprets its respective philosophy, functions, and possible contribution,

and when the security and confidence of each discipline are maintained. These requirements are essential to the effective and efficient functioning of the health team in the interests of the people it is intended to serve.

The importance of auxiliaries in the health delivery system has been widely emphasized. Greater attention needs to be paid, however, to the education, training, and utilization of these members of the health team. The quantity, categories, roles, and functions of all auxiliaries should be related to the quantity, categories, roles, and functions of professional health workers, the latter being responsible for determining these factors with respect to auxiliaries. Auxiliaries should be integrated into the health team as indispensable members having well defined responsibilities, i.e., they should not be employed to fill gaps. Their family planning activities should be an integral part of their regular health care activities; in other words, auxiliaries should not be developed as full-time single-purpose workers for family planning only.

Within the health team, the nursing and midwifery component of health services is delivered by a team of nursing and midwifery personnel, both professional and auxiliary, who represent a variety of skills and levels of competence. The concepts and principles described above in relation to the health team also apply to the nursing team.

Responsibility for the total management of the care provided by the nursing and midwifery team is the concern of professional nurses and midwives, whether they provide direct care themselves or assure its provision by auxiliaries. According to their basic preparation, the level at which they function, the health programme in which they are employed, and the composition of the team, nursing and midwifery auxiliaries can be involved, on a more or less modified scale, in all the major areas in which professional nurses and midwives are involved. They may, for instance, engage in general nursing practice through such activities as case-finding, referral, follow-up, assisting professional staff, and giving advice on health problems; they may be required to supervise less prepared staff; they may carry out administrative duties such as record-keeping and the requisition and distribution of supplies; and they may help in research studies by collecting data for professional staff.

The education, training, and supervision of nursing and midwifery auxiliaries are the responsibility of professional nurses and midwives. This responsibility covers basic courses, refresher courses at regular intervals, and short intensive courses and continuous on-the-job training for those already in service. The objectives of these programmes should specify what tasks the auxiliary should be able to perform as a team worker, and the content of the programmes should specifically equip the auxiliary to carry out those tasks.

For the effective and efficient functioning of all types of teams involved in the delivery of health care it is necessary to have a sufficient number of staff adequately prepared in terms of knowledge, skills, sensitivity, and understanding. Adequate preparation in turn requires a clear definition of the responsibilities and functions of each member of the team. There follows a description of the functions of nursing and mid-wifery personnel in relation to family planning services.

FUNCTIONS OF NURSING AND MIDWIFERY PERSONNEL

The family planning function of nursing and midwifery personnel should be regarded as a regular and integral part of all nursing and midwifery functions and not as a separate entity. In this context, but with a particular view to the total system for the delivery of family planning services, nurses and midwives may function in at least one of the following capacities:

(1) as general nursing or midwifery practitioners (providers of direct patient care) either specifically in family planning services or in any nursing service where the health care of people and their referral to family planning services is carried out;

(2) as clinical specialists in, *inter alia*, the techniques and procedures related to family planning;

(3) as administrators and/or supervisors concerning the nursing and midwifery aspects of family planning services;

(4) as educators of health personnel in the nursing and midwifery aspects of family planning services; and

(5) as research workers concerned with the nursing and midwifery aspects of family planning.

Nurses and midwives at each level of function could participate in all these capacities to an extent determined by the preparation they have received. The functions to be carried out by each health worker, professional or auxiliary, should be clearly defined in a written job description, and there should be legislation or regulations to control nursing and midwifery education and practice for the protection of both the health worker and the public.¹

¹ For further information on legislation, see *Wld Hlth Org. techn. Rep. Ser.*, 1971, No. 476, p. 11.

FUNCTIONS AS GENERAL NURSING OR MIDWIFERY PRACTITIONERS

With regard to family planning services — as they relate to individuals, couples, and the public — nursing and midwifery personnel have three major concerns, namely, case-finding, the initiation of family planning practice, and continuing care.

Case-finding

Case-finding, the first major function of nursing and midwifery practitioners in relation to the provision of family planning services, consists mainly in (a) identifying those in need; (b) arousing among individuals and/or the public as a whole an awareness of and an interest in family planning, by providing information both on the health aspects of family planning and on the services available; and (c) with regard to those who appear interested, obtaining identification data and a clinical history, performing any relevant physical examination that is within their competence, and starting a systematic record.

Identification of those in need of family planning. The first case-finding function, the identification of those in need of one or more components of family planning care, will depend on how needs are perceived by those who formulate policy, by those who provide services, and by the public in general and individuals in particular. To a large extent, needs will vary according to the size and composition of the population, particularly the number of women of child-bearing age. Generally, all of the latter may be considered as a target population for family planning care. Specifically, however, there are four main groups who might need or want such care: (a) young couples wishing to postpone the starting of a family; (b) couples wishing to space their children in order to allow the mother time to recuperate between pregnancies; (c) couples who consider that they have enough children and would like permanent contraception; and (d) those who wish to have children but fail to conceive. Other target groups include: (a) those who enter sexual union at an early age (under 18 years), the very young mother being subject to excessive risks as a result of pregnancy; (b) those who continue sexual union beyond the age of 40, the risk of congenital anomalies in children of parents in this age group being high; (c) those who are of child-bearing age but are unmarried; (d) those for whom pregnancy is a risk for health reasons; and (e) those who have had repeated spontaneous abortions and no full-term deliveries.¹

¹ For further information on the assessment of needs, see *Wld Hlth Org. techn. Rep. Ser.*, 1971, No. 476, p. 17.

Nursing and midwifery personnel can identify and contact persons in the above categories in a variety of places and situations, e.g.:

(1) in dispensaries: during the prenatal and the postpartum examination of mothers; while providing child-care services such as those related to immunization and nutrition; and at the census and screening posts;

(2) in health centres: at the reception post; during gynaecological or medical consultations; and during premarital tests;

(3) in general hospitals, maternity hospitals, and family planning clinics: during postpartum care; in gynaecological wards; at the termination of pregnancy; during general medical care; and during the recording or studying of the patient's case history;

(4) in all other health services: while caring for adult women and men, adolescents, children, and infants; during educational activities in all settings; when carrying out control activities for specific diseases such as tuberculosis and venereal diseases; and while studying the health record of the family;

(5) in the home: whatever the principal reason for the visit of the health worker;

(6) in the community: during discussions with individuals and couples and with such groups as parent-teachers associations and women's clubs or organizations; or where, particularly in small towns and villages, men and women tend to congregate as part of their daily life pattern, such as at the local market, at the well, or at other public places;

(7) in the schools: while teaching pupils about human reproduction, sex, and family life, and while supervising school health services; and

(8) in factories and industrial plants: during the periodic medical examination of workers or their visits to the factory clinic.

The list is not exhaustive; other places and situations may be equally suitable. The principle should be: family planning services and education are a fundamental part of any service concerned with health or family life.

Arousing interest in family planning. The second case-finding function, that of arousing in people an awareness of and interest in family planning, is a prime factor in the success of any family programme. Interest in family planning arises within the individual once he understands fully the implications of family planning, particularly in relation to his own problems and needs. In this regard, the function of nursing and midwifery personnel is to teach, i.e., to provide all the information needed by an individual in order to help him understand and make decisions. To this end, the teacher must know not only the subject to be taught

and how to teach it, but, equally important, the person to be taught — his interests, problems, inhibitions, mode of expression, level of literacy and knowledge, cultural background, beliefs, and attitudes. To know the person to be taught, it is necessary to listen to him. It is equally important to determine whether the person in the teaching-learning situation has learned. Giving a lecture is not necessarily teaching, and listening to a lecture is not necessarily learning. The teaching-learning process requires reciprocal communication between the teacher and the learner — whether the latter is an individual or a group. Only as teaching is reflected in changed behaviour is it possible to know the extent to which there has been learning and acceptance.

The methods of teaching used by nursing and midwifery personnel, as well as the amount and nature of the information they provide, will depend on a number of factors, including the following:

(1) the policy both of the government concerned and of the institutions in which nursing and midwifery personnel are employed. If, for example, the policy is such that nursing and midwifery personnel are permitted to carry out only the function of referral, this must be taken into account.

(2) the traditions and attitudes of the individuals concerned and of the society in general as regards fertility, fecundity, sterility, abortion, sterilization, contraception, sexual union, sex education, life and death, male and female role identity, etc. In some countries it may be possible to discuss only limited aspects of family planning and with a limited stratum of the population.

(3) the characteristics of the persons or groups in need, i.e., whether they are adolescents, couples who have children, couples who have none, pregnant women, or any of the others mentioned previously.

(4) the knowledge and understanding that nursing and midwifery personnel possess in relation to family planning, human reproduction, and population dynamics, and the skills they possess in methods of teaching.¹

(5) the level of education of the individuals and groups to be taught and the language or dialect spoken.

(6) the type and amount of manpower, facilities, equipment, and supplies available for teaching and learning.²

These factors may also determine which of the following methods of creating awareness and interest will be the most suitable and effective.

Individual contact. This is the best approach, in that it makes possible the tailoring of information to the individual and to his particular needs.

¹ For a more detailed consideration of knowledge, skills, and understanding, see pp. 30-35.

² For further details, see *World Health Org. techn. Rep. Ser.*, 1971, No. 476, pp. 22 and 42.

While many settings offer an opportunity for individual approach, the best is the home visit, which provides ample opportunities for nursing and midwifery personnel to discuss sensitive matters, within the local cultural context, with individuals, their relatives, and friends. This personal approach allows a deeper insight into the problems of the family and can have a great impact on the family as a whole.

Group talks or discussions. This approach is most useful when used by nursing and midwifery personnel who are experienced in group work. Its advantages are numerous: it can help people to express themselves to those who have similar problems; the mutual exchange of ideas and the encouragement that certain members of a group can give to others help to dissipate anxiety and to correct misunderstandings; individuals learn from each other's questions and help to reinforce each other's decisions; and those whose family life has already been improved as a result of family planning can tell others of its benefits — an important stimulus to motivation, in that satisfied users of fertility control methods have proved to be the best educators in family planning.

Community involvement. Without the involvement of the community, there is little hope for the success of a family planning programme. An important function of nursing and midwifery personnel is to identify and make contact with influential persons in the community, e.g., academic, religious, political, and social leaders, with a view to seeking their involvement both as agents of change in the behaviour of people with regard to family health and as active participants in the development of family planning programmes.

Examination of interested persons. The third case-finding function, which relates to persons who manifest an interest in family planning services, is that of determining which component of such services is most relevant to the needs of the persons concerned. To this end, personnel should obtain all the data possible on the identification of the interested individual or couples, as well as a complete clinical history, including that of all immediate members of the family, where relevant. Data thus obtained should constitute the beginning of a systematic process of record-keeping. An additional case-finding function in such instances is the performance of any relevant physical examination that is within the competence of the personnel involved.

Initiation of family planning

The initiation of family planning practice, the second major function of nursing and midwifery practitioners engaged in the provision of family planning services, can begin — in the community setting — with the

distribution of local and chemical contraceptives as a temporary measure for those interested in starting family planning immediately. What is more important, however, is the referral of interested persons to the proper place, person, or service for care. This function should be carried out in such a way as to facilitate promptly the implementation of the person's decision to start family planning practice or to accept a specified component of family planning services, e.g., treatment of a related gynaecological problem, premarital counselling, or help with emotional or social problems, according to the person's need. In making the referral, nursing and midwifery personnel must make certain that the person concerned wants the referral, that it is appropriate to his needs, and that he is adequately prepared for the experience.

In some areas, mobile units provide a way for family planning workers to take the service to the clients for immediate action rather than waiting for the clients to come to the clinic. Immediate action is important, since some clients, after accepting the idea of family planning, may not go immediately to the clinic to seek the appropriate method and may even change their minds about beginning family planning. A major drawback of mobile services of any kind is the lack of permanent personnel capable of giving adequate follow-up care. Sometimes, however, they are the only way of providing isolated communities with service.

In the clinical setting, nursing and midwifery personnel with the necessary training and experience will have the following additional functions related to the starting of family planning practice.

- (1) In the first interview with the individual or couple, they will:
 - (a) evaluate their knowledge of family planning practices,
 - (b) provide basic information about reproductive biology and psychology and explain the available methods of family planning and their use, advantages, and disadvantages, employing when possible such educational media as audiovisual aids, and
 - (c) explain the clinical procedures.
- (2) When the individual or couple arrive voluntarily at an opinion about the method they wish to use, the nursing and midwifery personnel will:
 - (a) refer them to the physician for a review of their medical history and a medical examination in order to determine whether there are contraindications to the method preferred,
 - (b) initiate whatever laboratory tests they may require,
 - (c) prepare them physically and psychologically for both the laboratory tests and the examination by the physician, and
 - (d) assist them and the physician during the examination.

- (3) Once the method has been agreed upon, they will:
- (a) provide them with a supply of the contraceptive (unless it requires the attention of a specialist),
 - (b) instruct them in the use of the method,
 - (c) stress the importance of returning to the clinic or health centre for periodic examinations, explaining the reasons for this in such a way that the client understands the follow-up procedures,
 - (d) review with them all the instructions and advice given by the physician and clarify any misunderstandings,
 - (e) assure them that if they have any problems they may return at any time for advice and care, and
 - (f) provide them with available printed material on the method they have chosen.

Follow-up

The provision of continuing care (follow-up), the third major function of nursing and midwifery practitioners engaged in the provision of family planning services, is essential for ensuring the continuing use of both prescribed and unprescribed contraceptive agents and measures and to counteract subfertility. In the community, this function can be carried out by nursing and midwifery personnel as a part of continuing general family care. In the clinical setting, it will be associated with the return of the individuals concerned to the clinic or health centre for regular examinations or for other reasons.

Follow-up care can be effective only if, for each individual, an appropriate schedule for examinations, care, and the provision of supplies is arranged and, equally important, maintained. Particular attention will have to be paid to those who are dissatisfied with the method used or discontinue its use for any reason; to those who fail to keep appointments; to those planning to move to another locality; and to those who require an adjustment in care because of their decision to have a child.

The continuing education of all individuals concerned, assistance with further examinations where required, the maintenance of records, and the making of reports, including the compilation of statistical data, are important activities of nursing and midwifery personnel in their provision of continuing care.

FUNCTIONS AS CLINICAL NURSING OR MIDWIFERY SPECIALISTS

Generally, the clinical duties of nursing and midwifery personnel have been restricted to the initiation of family planning. However, in a country that accepts the midwife or nurse-midwife as responsible

for conducting the delivery of a women of her child, there is good reason to think that other specialized clinical procedures could be undertaken by her if she has received the necessary training. In optimum conditions, these technical procedures would be performed under medical supervision. However, in a number of countries the nurse or the midwife may be solely responsible for the delivery of services to a community. Such a situation requires that additional education, training, and experience be given to nursing and midwifery personnel who will be called upon for such clinical duties as performing pelvic and breast examinations, taking Papanicolaou smears, prescribing contraceptive methods, inserting intrauterine devices, and fitting diaphragms. This would allow the use of whatever physician-time is available for cases where complications exist.

FUNCTIONS AS NURSING OR MIDWIFERY ADMINISTRATORS AND/OR SUPERVISORS

Administrative functions

The administrative functions of nursing and midwifery personnel in relation to a family planning programme centre on the planning, programming, and evaluation of the nursing component, in the context both of the family planning programme as a whole and of the nursing and midwifery programme as a whole. Basic to these functions is the need for information with regard both to current and potential nursing needs and resources in relation to the delivery of family planning services and to human reproduction, family planning, and population dynamics as a health concern. In the collection of data, particular attention should be paid to:

- (1) the family-planning case load carried by nursing and midwifery personnel in relation to their routine case load,
- (2) the number of persons attending clinics for family planning services in relation to the number attending for other services,
- (3) the activities to be carried out by nursing and midwifery personnel in relation to family planning (e.g., history taking, counselling, clinical procedures, and follow-up care),
- (4) the level of competence of nursing and midwifery personnel required to carry out each of the activities, and
- (5) the additional education, training, and/or supervision required by those personnel to whom the family planning content of the activities is new.

On the basis of available data and information and within the limits imposed by the policies of the government and of the employing agency in relation to family planning services, the nurse- or midwife-administrator will outline a programme and develop a plan of action for the delivery of the nursing component. This plan of action will constitute a form of logistical table or schedule that outlines the objectives to be attained, the activities to be carried out to this end, by whom, with what equipment and supplies, and how, when, and where. In the development and implementation of the plan of action, the nurse or midwife will be accountable for how and with whom she will participate in order to ensure the appropriate fit of the nursing and midwifery component with other components of family planning services and with other health services. In this context, her activities and responsibilities will include:

(1) participation in the formulation of overall policy regarding the delivery of health services related to family planning, human reproduction, and population dynamics, e.g., responsibility for clarifying the feasibility of implementing such policies in terms of both nursing/midwifery capacity and the appropriateness of the tasks involved to nursing/midwifery function,

(2) participation in the planning both of overall community services in family planning and of their integration into basic health services,

(3) participation in the planning of overall surveys of needs and resources in relation to family planning services,

(4) participation in the preparation of an overall budget for family planning services and responsibility for the preparation of the budget for the nursing and midwifery component,

(5) participation in the planning and organization of an overall system of data collection, and responsibility for the planning of a routine reporting system and of special studies concerning nursing and midwifery services, education, and practice in relation to family planning,

(6) participation in the development of overall staffing standards and patterns for family planning services, and responsibility for the development of the staffing standards and patterns for the nursing and midwifery component,

(7) responsibility for the establishment of a communication system that will ensure the coordination of the overall nursing component, and participation in the coordination of the nursing component with other components of family planning services within and outside the agency or institution involved,

(8) responsibility for the coordination of the nursing and midwifery education and training programme, i.e., coordination between the teaching institution and the field practice areas used for student learning,

(9) participation in the planning of in-service education and training of all staff, and responsibility for the planning of in-service education and training and other programmes related to the further development of nursing and midwifery staff,

(10) responsibility for the recruitment and deployment of nursing and midwifery staff,

(11) the requisitioning and allocation of supplies and equipment needed for the delivery of the nursing and midwifery component of family planning services (sometimes the responsibility of a unit manager, ward secretary, or purchasing agent, with whom needs must be discussed), and

(12) participation in the evaluation of overall family planning services, and responsibility for the evaluation of the nursing component.

Supervisory functions

The supervisory functions of nursing and midwifery personnel are closely tied to the administrative functions in that they are concerned mainly with the implementation and monitoring of a large part of the plan of action — to the development of which supervisory staff make an important contribution.

In health services, the main objective of supervision is improvement in the care given to individuals, families, and the community. To this end, the supervisory functions of nursing and midwifery personnel in relation to family planning services include:

(1) teaching, counselling, guiding, and supporting the staff for whom they are responsible, ensuring that such staff

(a) understand the relevant policies and objectives,

(b) look upon family planning care as a part of comprehensive nursing care,

(c) know the tasks they are to perform,

(d) know how to perform the tasks,

(e) are carrying out the tasks,

(f) are aware of their accomplishments and, conversely, of where they need to improve performance,

(g) are given the opportunity to express their own needs,

(h) are given opportunities for professional growth through in-service and continuing education and training,

- (i) participate in multidisciplinary clinical conferences,
 - (j) maintain a proper balance between family planning activities and other nursing and midwifery activities,
 - (k) understand the importance of gathering information as a basis for evaluation,
 - (l) understand the importance of accurate recording, and
 - (m) are involved in the continuous evaluation and improvement of relevant policies, standards, functions, and procedures,
- (2) organizing, supervising, and evaluating the practical experience of students,
- (3) promoting cooperation between members of the nursing and midwifery staff at all levels and between such staff and other members of the health team,
- (4) assessing needs for additional staff, equipment, and supplies, and
- (5) participating in the evaluation of family planning services (particularly of the nursing and midwifery component) through the preparation of statistics and reports based on the daily reports of nursing and midwifery staff and on special studies and surveys.

FUNCTIONS AS EDUCATORS OF HEALTH PERSONNEL

Where family planning services are recognized as an integral component of health services, nursing and midwifery personnel, in their capacity as educators, are responsible for including relevant content on this subject in formal and informal education and training programmes for existing health staff, both professional and auxiliary, and for new students of nursing, midwifery, medicine, social work, etc.¹

FUNCTIONS IN RESEARCH

All nursing and midwifery personnel have, to varying degrees, a research function — ranging from the routine collection of information to the planning and carrying out of specific studies. Many research projects related to family planning, human reproduction, and population dynamics include a nursing component, and nursing and midwifery personnel can make a significant contribution to the planning and conduct of broad investigations into these areas. Nursing records and specific studies related to nursing and midwifery can contribute much to reveal-

¹ For the education and training of nursing and midwifery personnel in relation to family planning, human reproduction, and population dynamics, see chapter 3.

ing the health and welfare needs of the community in these areas and the degree to which they are being met.

Often the nurse or midwife will participate as a member of a research team and, as such, carry out the following activities:

- (1) suggest relevant areas that require investigation and help to define the specific problems to be investigated,
- (2) participate in the designing of the study, including procedures for its implementation,
- (3) assist in the collection of data and information,
- (4) teach and supervise others — health personnel as well as members of the community — who are collecting information, and
- (5) assist in the processing and interpretation of data, assume responsibility for the interpretation of material related to nursing and midwifery, and recommend areas or problems for further study.

Where the nurse or midwife is solely responsible for the conduct of a study, her functions will be similar to those above, but, instead of participating and assisting, she will provide leadership in the sense that she will be responsible for:

- (1) selecting the problem for study and defining it clearly in terms of stated objectives,
- (2) deciding what data and information should be gathered and how these will be collected and analysed,
- (3) selecting a study group,
- (4) deciding the types of incidents that should be observed and the period of time during which observations should be carried out,
- (5) setting up a system for the tabulation and interpretation of the data and information collected,
- (6) studying the findings and determining their implications for action, and
- (7) writing the report of the study.

These research functions do not preclude the need for expert advice from other nursing and midwifery personnel or from other professional workers such as anthropologists, sociologists, psychologists, physicians, and statisticians.

CONCLUSIONS

It is recognized that, of the five functional areas described above — namely, general nursing or midwifery practice, clinical specialization, administration and supervision, education, and research — the area of

general practice constitutes the core of nursing and midwifery activities in the delivery of family planning services.

That an effective system for the delivery of the nursing and midwifery component of such services has not been established, even in countries where family planning is widely accepted, is owing to a number of reasons, including a lack of understanding of the potential role of the nurse and midwife in family planning. In some countries, the rapidity with which family planning programmes have been launched or expanded has not allowed sufficient time for the adequate education and training of the requisite number of nursing and midwifery personnel.

The establishment of an effective system for the delivery of the nursing and midwifery component would entail attention to a number of factors. There would, for instance, be a need for nursing and midwifery personnel to (a) increase their own level of perception of the importance of family planning services as a means to better health and welfare and of their role in this respect and (b) interpret this role to other members of the health planning team in order to increase their level of perception as well. There would also be a need to:

- (1) carry out adequate planning of the nursing and midwifery component, identify the tasks to be performed and the level of preparation required, and develop nursing and midwifery manpower accordingly,

- (2) make better use of existing nursing and midwifery personnel, especially where the programme is hampered by the technical or psychological unpreparedness of such personnel to provide family planning services,

- (3) use to good advantage the actual or potential influence exercised by traditional birth attendants and, at the same time, bring the services they provide into line with the standards set by the health department, and

- (4) improve the distribution of functions among the members of the team responsible for providing family planning services.

EDUCATION AND TRAINING

The need to keep nurses and midwives up to date in maternal and child health, and through them to orient other nursing and collaborating personnel, is being met in a number of ways. One of the more popular approaches in some countries is the granting of fellowships, principally for participation in structured courses. Because family planning services require nursing and midwifery personnel who are dedicated, actively involved, and adequately prepared to assume the responsibilities intrinsic to their proper roles, efforts have been made to bring together in such courses nurses and midwives from both service and teaching positions in order to provide a setting in which they can exchange ideas, broaden their attitudes, and reach agreement on the way in which nursing education and nursing services can be coordinated for the improvement of family health care, including family planning.

Many countries have found it expedient to set up less structured in-service and/or continuing education programmes consisting of a series of one-hour formal lectures or of short intensive courses of one or several weeks' duration.

In some instances, educational centres in maternal and child nursing integrated with family planning have been set up in order to provide relevant short intensive courses, postbasic courses, and postgraduate courses and to develop and utilize new educational and administrative methods and techniques in accordance with the country's needs and health programmes.

In some instances there has been a promotion of multidisciplinary educational activities in maternal and child health and family planning in which nurses, midwives, physicians, social workers, and other health workers have participated. Some of these have been intercountry and/or country-level seminars focusing on concerted action to meet priority maternal and child health needs.

As regards formal basic nursing education programmes, the pattern is also variable. In some instances the family planning content is offered

throughout the basic curricula and in others throughout only certain years of the programme. In yet other programmes, the content is offered in the form of a block experience.

From the above examples it is readily apparent that the education and training of nursing and midwifery personnel for work in family planning ranges from informal short courses, given separately or as part of another course, to well structured programmes in which the family planning content is integrated into the curriculum.

Weaknesses common to many programmes are: (a) lack of a clear statement of philosophy and objectives, (b) insufficiency of teaching personnel adequately prepared in teaching methods and in the subjects of family planning, human reproduction, and population dynamics, (c) insufficiency of material resources such as libraries, audiovisual aids, and facilities for practical work, (d) lack of coordination of the various courses in the programme, and (e) inadequate and excessively subjective evaluation of the content of courses, teaching methods, and learning.

RESPONSIBILITY FOR PLANNING EDUCATION

Decisions in relation to education and training programmes are more likely to be implemented successfully when they evolve as a result of the participation of all persons who may be affected by the decisions than when they are made exclusively by individuals who, at a particular time, are in positions of power. The teacher, the learner, and the consumer of health services are the ones most affected by decisions made and are often the ones least involved in this respect. Too frequently, for example, nursing and midwifery educators are neither fully consulted nor even informed about plans and proposals for education and training.

Ideally, a special committee should be set up to make an exploratory study and develop a plan. It should be composed of (a) teaching staff representing all relevant disciplines, who would advise on the broad areas of potential curriculum content, (b) students, who would give their views on the kind of content and teaching that they feel would meet their needs, (c) nurses and midwives, and (d) consumers, who would describe the capabilities they would like to see in those who will be providing the services. If necessary, experts in curriculum construction, as well as clinical nursing and midwifery specialists in family planning, may be invited as consultants. The recommendations formulated by this group would be returned to all teaching staff involved for approval and implementation.

The variables which the committee should take into consideration in planning the programme include the following:

- (1) the policy of the government regarding family planning services;
- (2) the availability of resources, e.g., teaching staff, facilities, equipment, and budget;
- (3) the objectives of the family planning content of the programme in relation to those of the overall content;
- (4) the expected family planning functions of those who successfully complete the programme, i.e., the level and category of nursing and midwifery manpower needed;
- (5) the level of the prospective students' general and (where relevant) professional education, including language proficiency and the type of teaching (e.g., didactic) to which they have been generally exposed;
- (6) the cultural and social environments from which students will come, especially as these relate to rules of conduct and to behaviour concerning such matters as obedience, respect for elders, women's rights, family planning, human sexuality, etc.;
- (7) the possibilities for relevant and meaningful field experiences and the manner in which these can be coordinated with theory;
- (8) the expected average rate of teaching and learning as a basis for determining the duration of the programme;
- (9) the sequence in which content in family planning could be introduced so that learning would be progressive and logical, i.e., so that the student could receive, comprehend, analyse, apply, and evaluate that content; and
- (10) the types of information and methods needed both for evaluating and for reorganizing the programme in terms of student performance, teachers, teaching methods, content, facilities, equipment, etc.

PILLARS OF THE EDUCATION AND TRAINING PROGRAMME

For any education and training programme there should be three minimum requirements or pillars on which the content of the programme is based, namely, philosophy, objectives, and resources. Each of these is discussed below in relation to the subject of family planning as a component of education programmes.

Philosophy

The philosophy of an education and training programme should include statements that (a) clearly define the meaning of family health, (b) support and/or advocate family planning services as an integral component of health services, and (c) suggest educational objectives or

the pattern of behaviour to be aimed at in the education of nursing and midwifery personnel for their functions in relation to family planning services.

Objectives

The objectives of the programme should be related to the social and educational philosophy underlying the programme as well as to the functions and tasks expected to be carried out by those who successfully complete it. These functions and tasks will be indicated to a large extent by the types of knowledge, skill, sensitivity and understanding that personnel will need in their future work. An outline of the possible objectives of an education and training programme is given below. Unless otherwise indicated, these objectives relate to all of the five major functional areas outlined in chapter 2. Thus each person educated and trained for nursing and midwifery practice in the provision of family planning services should, according to the functional area or areas in which she will be involved, possess the knowledge, skill, and understanding described in the following sections.

Knowledge. The nurse or midwife should have an understanding of the important facts, concepts, and/or principles related to:

(1) Population dynamics (population changes and their effect on human welfare)

(a) population trends: e.g., annual growth rate; age structure (proportion aged under 15, proportion aged 15-59, proportion aged 60 and over, average age, ratio of the dependent population to the population of working age); ratio of men to women; proportion of persons of reproductive age; life expectation at birth, at 20 years, at 60 years; average number of children born to women by the age of 50; average birth and death rates; and patterns of emigration, immigration, and internal migration;

(b) rate of demographic transition from wastefully high death and birth rates to a more efficient and humane reproduction with lower birth and death rates; and variations within regions and countries;

(c) interrelationships between population growth, population control, family planning, and fertility, and the effect of these on the wellbeing of the population: e.g., economic, social, and political effects; consequences for education, for the health and welfare of the population generally, and for the physical and mental development of children; and the effects on the environment; and

(d) policies that either promote or impede the growth of populations.

- (2) Community factors, attitudes, and practices
- (a) prevailing sex norms among variously defined groups, e.g., adolescents, unmarried men and women, and the economically advantaged and disadvantaged;
 - (b) current and changing religious, legal, social, cultural, and/or economic concepts as they concern family planning practices, child spacing and family size, sex education, human sexuality, unmarried parents and their children, abortion, child-rearing, health care, male and female responsibilities, and marriage and divorce (i.e., age at marriage, arranged marriages, rights of women with regard to marriage and divorce, etc.); and
 - (c) other factors affecting the practice of family planning, such as geography, topography, agronomy, homogeneity, languages spoken, and level of literacy.
- (3) Family organization in the context of other social institutions
- (a) differences in the form of the family, e.g., nuclear and extended;
 - (b) role of the family as an agent in the etiology of disease, i.e., as a system of interacting personalities who create either a calm or a stressful environment that renders its members either fit or unfit to resist disease, and as an intervening variable that passes on a culture conducive either to good or to poor living circumstances;
 - (c) role of the family as a unit in health care, i.e., as a repository of culture capable of defining the causes of and the cures for illness, of mediating the access of family members to such health care as exists, of providing its own health care, and of influencing its members to serve in the health professions;
 - (d) role of the family in the care, socialization, and training of children, in the care of the aged, in economic productivity, and in political affairs;
 - (e) internal organization of the family as regards the status of generations (the young and the elderly), the status of male *vis-à-vis* female members, and the lines of authority and responsibility; and the relationship of these factors to the socioeconomic status and the level of education that each member of the family possesses;
 - (f) life cycle of the family: birth, childhood, adolescence, courtship and mating behaviour, marriage and other unions, varieties of conjugal rules, etc.; and
 - (g) interactions between the family and other social institutions, e.g., effects of economic and social change on the family in terms of occupational opportunity, access to education, availability of social

services, etc., and effects of changes in family form, size, composition, and roles on other institutions in the society.

(4) Epidemiological characteristics of infant and maternal mortality and morbidity: assumptions concerning their effect on fertility and their implications for family planning; and identification of high-risk groups.

(5) Indications for family planning

(a) demographic

(b) social

(c) economic

(d) health

(e) genetic.

(6) Resources

(a) health agencies: extent and capacity of maternal and child health and basic health services;

(b) community agencies, institutions, and organizations offering family planning services: their policies and practices, and the coordination and referral system;

(c) sources of financial aid for individuals, families, communities, and programmes;

(d) sources of family-planning information, e.g., books, pamphlets, audiovisual materials, whether locally prepared or from foreign cultures, as well as the language in which they are available;

(e) relevant legislation concerning available funding and restrictions on practice; and

(f) human resources and the role of each category of professional, auxiliary, and lay personnel, with emphasis on nursing and mid-wifery personnel.

(7) Methods of family planning and fertility control

(a) mode of action, effectiveness, contraindications, advantages, disadvantages, and possible harmful side effects of each method, from those involving periodic abstinence, such as the rhythm method, up to and including tubal ligation and vasectomy;

(b) abortion: methods, complications, and the relationship of abortion to family planning;

(c) psychological factors associated with the success or failure of the various methods; the effect of the practices, attitudes, and legislation (or changing trends in legislation) associated with each method; and

(d) detection and correction of infertility and subfertility.

(8) Other knowledge

- (a) anatomy and physiology of human reproduction;
- (b) genetics (basic knowledge); and
- (c) the terminology, methods of measurement, and indices of programme evaluation.

Skills. The education and training of the nurse or midwife should aim to inculcate the following skills:

(1) Communication skills (particularly for those who will function as general nursing and midwifery practitioners)

- (a) ability to listen to people;
- (b) ability to teach (interview, advise, guide), i.e., to enable individuals, groups, and the community to acquire and apply the relevant knowledge they need or demand; and
- (c) ability to prepare and use various media for teaching and learning, e.g., audiovisual aids and group discussion, and ability to operate educational equipment.

(2) Clinical skills (particularly for those who will function as clinical specialists)

- (a) ability to recognize the problems of patients, arrive at a nursing diagnosis based on a critical assessment of the situation, initiate a course of nursing action, and evaluate the effectiveness of such action;
- (b) ability to take a personal medical history, carry out physical examinations, and make physical evaluations or assessments;
- (c) ability to perform or assist with pelvic and breast examinations;
- (d) ability to carry out diagnostic testing procedures, e.g., blood pressure and haemoglobin determination;
- (e) ability to collect and handle specimens, cultures, and slides for laboratory examination;
- (f) ability to administer intravenous medication;
- (g) ability to recognize conditions or reactions requiring the attention of a physician;
- (h) ability to fit diaphragms;
- (i) ability to insert, check, and remove intrauterine devices; and
- (j) ability to prescribe oral contraceptives after evaluating the physical and emotional condition of the patient.

(3) Educational skills (mainly for those who will function as educators of health personnel)

(a) ability to teach according to modern concepts of teaching and learning and using a combination of methods, e.g., lectures, group discussions, assessment of situations, role-playing, case studies, audiovisual aids, programmed instruction, and self-instruction;

(b) ability to construct curricula and develop an integrated content of theory and practice; and

(c) ability to evaluate teaching and learning in relation to the objectives of the education programme and in terms of the methods of teaching, the content, and the performance of students.

(4) Administrative and supervisory skills (mainly for those who will function as administrators and/or supervisors)

(a) ability to plan, programme, and evaluate the nursing and midwifery component (services, resources, in-service training, etc.) of family planning services;

(b) ability to supervise, counsel, guide, and support staff and students and to interpret their needs;

(c) ability to promote the leadership skills of staff and of students undergoing practical training;

(d) ability to plan, organize, manage, and evaluate the nursing component of a ward or clinic;

(e) ability to recognize problems, arrive at decisions based on a critical assessment of the situation, initiate a course of action (with or without the aid of others), and evaluate own performance;

(f) ability to record information, use data, and make comprehensive and comprehensible reports;

(g) ability to coordinate the nursing component with other services; and

(h) ability to share and to help staff to develop and advance professionally.

(5) Research skills

(a) ability to design and carry out research projects as described on pages 24 and 25 (for those qualified to do so);

(b) ability to solicit or otherwise collect and record information and data systematically, faithfully, and completely;

(c) ability to identify specific relevant information and evaluate its accuracy; and

(d) ability to assist a research worker in contacting clients and in interpreting data.

Sensitivity and understanding. In the course of her training, the nurse or midwife should develop a considerable degree of understanding and sensitivity with regard both to her work and to the people she serves. In particular, she should have these qualities:

(1) concerning people as individuals having specific physiological, psychological, and social needs;

(2) concerning social situations that require sympathetic perception and tactful handling, e.g., poverty, illegitimacy, premarital and extra-marital sexual situations, adolescent sexual situations, sexual aberrations, ignorance, drug abuse, abortion, contraception;

(3) concerning family planning as a principle and as a measure for the promotion of health;

(4) concerning human sexuality in the broad sense of body changes, sexual attraction, courtship, marriage, sexual intercourse, human response, the role identity of males and females, conception, childbirth, and maturation;

(5) concerning her own role as a nurse or midwife and as a person to whom people can turn when in need;

(6) concerning her own strengths and limitations with regard to knowledge, skills, and understanding; and

(7) concerning the sources of both strain and compatibility between the health professions and other institutionalized services within the society.

Resources

Resources, which constitute the third major pillar of the education and training programme, include staff, students, educational facilities and equipment for the teaching of theory, and field areas for clinical practice, as described below.

Teaching staff. Teaching staff are a key factor in the success or failure of any education and training programme. Like all human beings, teachers are inclined to interpret facts in the light of their own opinions and attitudes. Therefore it is essential that, prior to the establishment of a large-scale programme for the preparation of nursing and midwifery personnel for their functions in relation to family planning services, provision be made to educate those who will be responsible for teaching. Their education should ensure that they:

(1) know how to construct curricula and develop curriculum content,

- (2) know how to coordinate all the components of an education and training programme in order to meet the objectives,
- (3) understand the principles and concepts governing teaching and learning, particularly the need to listen for and respond to the learner's questions and comments, both explicit and implicit,
- (4) are versed in the various educational methods and know how to use educational equipment,
- (5) know the content of the subjects they are to teach, including the content related to family planning,
- (6) have the technical and clinical competence needed for teaching by demonstration,
- (7) are aware of their professional responsibilities towards students, professional colleagues, and the public,
- (8) are aware both of the rapid changes in knowledge, techniques, and attitudes concerning family planning, human reproduction, and population dynamics and of their responsibility to keep up to date with such changes as well as with new developments in educational methods, and
- (9) are free from inner conflict regarding the subject of family planning.

In addition to possessing these basic abilities and characteristics, teachers should keep abreast of advances in family planning and education. To do this, they will require opportunities for continuing education, which should include participation in staff meetings, workshops and conferences, and access to current literature.

The composition of teaching staff will vary according to the situation and to the level at which personnel are being prepared to function. Objectives could largely be achieved through a multidisciplinary approach, with a teaching staff of adequately prepared nurses and midwives supported by visiting physicians and field workers, and by various professional people such as epidemiologists, health educators, psychologists, sociologists, economists, statisticians, legislators, and priests. Where possible, students themselves, under the guidance of teaching staff, should participate in the teaching process.

Students. Students are the *raison d'être* of an education programme. Owing to the rapidity with which family planning services have developed in some countries and to the relative scarcity of trained personnel, the problem often arises of determining who should be trained and who should constitute the first groups of students to be enrolled. The priority need is to prepare a certain number of nurses and midwives as educators. This is logical, inasmuch as health personnel cannot be properly prepared for their functions if those who teach them are not adequately prepared

for teaching. On the other hand, in countries where family planning programmes have developed at great speed, a priority of equal importance is the immediate recruitment of students from among nursing and midwifery personnel already involved in the provision of family health services. Such students would include those personnel who had qualified before family planning, as a subject, was included in their professional education and training and who had not, on their own initiative, learned to understand the need for and the work involved in family planning services. It would also include others who, because of their cultural background, were finding it difficult to change their attitude in so short a time. In most cases, existing staff could be trained through (a) supplementary short courses to improve their technical knowledge, (b) continuing education and training programmes to raise their general and professional level of education, and (c) refresher courses to bring them up to date in new theory and techniques related to the work they were currently carrying out. One advantage of training personnel already in practice is that they would be favourably disposed toward helping new personnel prepared in family planning to become assimilated into the programme.

Nursing and midwifery personnel, no matter how well prepared, can never be regarded as "finished products". For this reason, certain in-service education programmes should be mandatory.

In relation to new staff, in-service education aims at making them effective and efficient as soon as possible by orienting them to their work, i.e., to their responsibilities, the people with whom they will work, and the facilities and equipment they will use. The initial period of service is often the time when staff develop positive or negative attitudes towards their work, which can in turn advance or impede the success of the health programme. For this reason, the feelings of new staff, particularly their anxiety, must be taken into account, since adverse reactions resulting from unresolved anxiety may be difficult to alter. The orientation programme should be designed to meet the new staff member's needs and should include:

- (1) identification of the knowledge and skills involved in duties outlined in the job description,
- (2) guidance on how to adapt already acquired knowledge and skills to the requirements of the health service,
- (3) provision of special instruction in those areas of family planning education or services that may be new to the staff member,
- (4) clarification of how the work of individual staff members will contribute to the purposes of the health agency in which they are employed, and

(5) reinforcement of the skills needed for their work with people whose patterns of behaviour are different from their own.

In relation to staff already employed, in-service programmes should be designed to meet the needs of staff for a stimulating work environment and for the acquisition of new knowledge and skills. Additionally, staff must be given opportunities to become familiar with new duties when their job description or assignment changes or when they are promoted to a higher level of responsibility. In addition to formally planned programmes of in-service education, opportunities for the further development of staff are provided through staff meetings, workshops, seminars, or conferences concerned with family planning and related subjects. The active participation of junior as well as senior staff should be encouraged and facilitated.

Since each staff member has her own blend of experience, capabilities, and needs, the content and duration of staff development programmes and the teaching methods used should be varied. Lectures, study days, observation in the services where family planning is provided, training in new procedures, and consultation with staff members all have their place in educational programmes. The preferred method, however, is that of problem-solving discussions, during which participants share their experiences and learn from one another as well as from the instructors. Information about some of the problems may be obtained through a questionnaire sent to prospective participants or through the recording of problems as and when they occur. This type of instruction, which focuses on the problems of staff as they perceive them, becomes as much a learning experience for both instructors and participants as does the actual in-service programme. The formulation of clear objectives and the planning of a system of evaluation and follow-up are essential elements of any programme of education, in-service or otherwise.

Next in priority to the preparation of teachers and the further development of those already in service would be the recruitment of students who, after graduation, would constitute new cadres of nursing and midwifery personnel. Among these would be a certain number of students preparing for positions of leadership — e.g., administrators, supervisors, educators of health personnel, and research workers — and a considerably larger number of students who would practise as general nursing or midwifery practitioners or as clinical specialists. The education and training should be geared to the needs of each group and to the level (professional or auxiliary) at which they will work. The professional nurse or midwife, as well as students in basic and postbasic nursing and midwifery education programmes, would require more theory as a basis for decision making than would the auxiliary, whose work is more task-oriented.

Educational facilities and equipment. For the teaching of theory the facilities and equipment required include well equipped classrooms of adequate size and an up-to-date comprehensive library of literature and audiovisual aids to facilitate the teaching-learning process. To the extent possible, the literature and aids should be nationally developed, should conform to the cultural patterns of the country and to the level of education of the learner, and should preferably be in the learner's mother tongue.

Field areas for clinical practice. The opportunity to gain practical experience is an important dimension of the third pillar of education and training programmes. The teaching staff and students should have direct access to all practice facilities available in the community and should be able to select and use those most suitable for teaching and most beneficial for learning. A variety of experiences can be obtained in outpatient departments, general and specialized hospitals, maternal and child health centres, premarital counselling offices, institutions for general and professional education, community organizations, and family planning clinics.

Consideration should be given not only to agencies that provide services for contraception and sterility but to all agencies and institutions rendering health services and/or disseminating health information and social services. In this way the student will obtain not only the fullest experience possible in the assessment and complete care of people but also an insight into the contributions made by all others in providing health care and family planning services.

The value of a particular practice area will depend on:

(1) its accessibility to students and teachers in terms of transportation and communication facilities,

(2) the opportunities it gives students to relate theoretical knowledge to the field situation, to develop knowledge and skills, and to acquire self-confidence,

(3) the opportunities it gives teachers to apply their knowledge and skills to the development of programmes in family planning, to test new methods of field training, and to develop further their own professional knowledge and skills, and

(4) the opportunities it gives administrators and/or supervisors to evaluate and refine the content and methods of supervision, to redefine the functions of various categories of health workers, and to improve the delivery of family planning services.

The two important aspects of field experience are observation and practice. Experience in observation can be arranged through the rotation

of students to the various institutions and agencies providing family planning services, through attendance at motivation programmes and follow-up visits, and through closer observation of the work of the physician and of the nurse or midwife in the clinical setting. Where relevant, and to the extent possible, the student should practise under supervision the work observed, whether it concerns, for example, the conduct of a class for mothers, the insertion of an intrauterine device, the keeping of a record, the making of a report, or the teaching of auxiliaries.

In the planning and implementation of field experience, it is important to emphasize the students' involvement in community problems pertaining to family planning. Students should have time to spend in the community, for such purposes as visiting families in their homes or people in different organizations and in different work and social situations. Such involvement will help them to develop the sensitivity and understanding they will need for proper practice. The time during which the experience is acquired should not be limited to regular working hours but should include evenings and week-ends so that the student can benefit from learning situations representative of varying family life experiences.

In the selection of field experiences, it is essential that field staff and students alike be apprised of the objectives of the experience, that an agreement be reached on the amount of time staff would need to devote to the students, and that students be told what to look for in order to meet the objectives.

METHODS OF TEACHING AND LEARNING

Imagination is essential in the selection of teaching methods. The personality and ability of the teacher, the characteristics of the learners, the setting in which teaching and learning take place, and the subject itself will determine the preference of one method over another. Various methods of teaching and learning are described in the following paragraphs.

(1) Informal lectures, given in a vivid and interpretative manner, can provide a steady flow of background information drawn from various sources and serve as a basis for discussion.

(2) Replies to questionnaires permit the detection of points that require elaboration.

(3) Classroom discussions enable the student to develop skills in critical analysis, self-expression, and decision making, and enable the teacher to evaluate the student's level of understanding. The teacher's

role is that of guiding the discussion and helping students to clarify their ideas and to seek evidence to support them.

(4) Student-instructor interviews serve as a basis for individual guidance, providing an opportunity both for the student to express his feelings and areas of interest and for the teacher to adapt the content and methods of teaching accordingly.

(5) Case discussions, led by a team of instructors from various disciplines, can help each student to see her own particular discipline as one facet of a comprehensive programme of care and to learn how to utilize other disciplines on behalf of the people she will serve.

(6) Role-playing and the simulation of typical situations in the hospital, the home, the community, or the clinic provide a practical test of the ability of students to perform the work for which they are being prepared. An analysis of the experience allows the learner to formulate general principles applicable to the real situation.

(7) Independent study projects, i.e., case, family, or community studies, encourage scientific analysis and problem solving and provide opportunities for contact with individuals and groups requiring counsel and/or referral.

(8) Programmed instruction allows students to proceed at their own pace and to acquire knowledge in a logical sequence.

(9) Audiovisual aids provide students with a variety of educational experiences that may not be obtainable through other methods. They are, moreover, economical in terms of teacher time. Such media should be placed at the disposal of students so that they can use them at any time they wish and can thus progress at their own speed.

(10) Demonstrations give the teacher and the learner an opportunity to put theory into practice, and they help students to develop manual dexterity.

(11) Oral and written reports enhance the student's skills in analysing, writing, and speaking.

(12) Self-teaching and learning through reading broaden the student's perspective and understanding and help to develop the habit of reading, which is so necessary to individual growth. The preparation of bibliographical cards could serve as the initiation of the student's own bibliographical file, which she could continue expanding throughout her educational preparation and during her professional career. Reviews of literature, through student presentation and discussion, help to increase students' perception and provide an incentive for keeping abreast of trends.

(13) Clinical and field experiences facilitate the application of knowledge, skills, and understanding to real life situations, as described on page 39.

INTEGRATION OF CONTENT

Where the expansion of family planning programmes is very rapid, it may be necessary to teach family planning, human reproduction, and population dynamics through short intensive courses and in-service training programmes. Eventually, however, such subjects should be integrated into existing nursing and midwifery curricula at all levels. The student would then come to regard family planning care as an inseparable component of total health care, and her knowledge, skills, and understanding with regard to family planning would permeate her personal and professional attitudes and behaviour.

At all levels of nursing and midwifery education, but particularly at the basic level, a number of factors need to be considered in the development and integration into curricula of content on family planning. Firstly, the content itself is changing rapidly and, with increased research, will continue to do so. Secondly, because the responsibility for teaching family planning is often shared by a variety of disciplines through various courses, there is a danger of fragmentation, repetition, omission, or dilution of content. Thirdly, in an age of increasing specialization, it is becoming ever more difficult to fulfil the primary purpose of a basic nursing education programme — namely, the preparation of a generalist nursing and/or midwifery practitioner.

In addition, certain questions might be raised in relation to the integration of content. They include the following:

(1) How do nursing and midwifery personnel feel about the teaching of subjects in these areas, and what do they regard as their role in these areas?

(2) In the development of content at basic and postbasic levels, what are the relationships between family planning subjects and other areas of nursing (medical, surgical, paediatric, psychiatric, community health)?

(3) To what extent do the objectives of programmes at basic and post-basic levels and the knowledge, skills, and social sensitivities derived from these programmes meet the expected competence of the student on graduation at these levels?

(4) How would one describe a successful nursing or midwifery practitioner, in terms of what she knows and how she functions in

relation to the provision of family planning services? How would one evaluate an existing education and training programme in relation to this description? What changes are needed, and why? Could present courses be changed or expanded? Are new courses needed? If so, what are they and how can they be developed and taught?

(5) What are the relationships between theoretical courses and the training received in field practice areas? Are changes needed? If so, what changes?

Content in family planning could be introduced into education and training programmes in a variety of ways, some of which are described below.

(1) It could be integrated throughout the curriculum, both in the foundation courses (e.g., behavioural and biological sciences) and in the nursing courses.

(2) In situations where it is not possible to integrate content throughout the curriculum, a block experience could be provided, either as a part of a course or as an independent course.

(3) In countries where it will be difficult to develop courses geared to or including family planning objectives, it may be possible to encourage participation in whatever carefully designed local programmes exist, such as the programmes of voluntary agencies.

(4) Where possible, there should be a multidisciplinary approach to both the teaching and the learning of content, i.e., teaching staff should be drawn from many disciplines, and students from a number of disciplines should take certain basic courses together. This would help to lay a foundation for team work — an important element in the provision of services.

(5) The family planning content will be enhanced if, on admission to the education programme, students receive a practical orientation in their country's family planning programmes in both rural and urban areas.

THE LEARNING PROCESS

Integration makes possible the acquisition of knowledge, skills, and understanding on a cumulative basis. This is in accordance with a general principle of education — that learning is a process involving a number of elements that may be classified either as phases of learning (i.e., realization, readiness, and involvement) or as kinds of learning (i.e., knowledge, comprehension, analysis and synthesis, application, and evaluation). There is a relationship between the two sets of elements

in the sense that certain kinds of learning take place during certain phases of learning. This association is brought out in the following description of phases of learning as they relate to content concerning family planning, human reproduction, and population dynamics.

The phase of realization is made up of two parts. The first is when the student is acquiring knowledge by remembering what she has heard, read, and observed about such topics as the existence of population problems, the relation between family size and health, and the existence of methods for the control of fertility. At present many students are not at first aware of family planning concepts and of the ramifications of population dynamics, and the realization of their existence is therefore of great importance. For future generations of students, however, realization will lose significance since it will already have been accomplished through mass communication and other means of teaching about human sexuality and family life.

The second part of the phase of realization starts when the student begins to comprehend the new knowledge she has gained, i.e., to interpret it in relation both to her previously acquired knowledge and experience and to her current beliefs and values. This process requires analysis and synthesis, on the basis of which the student will develop either positive or negative attitudes. With positive attitudes, the student will be keen to learn more; with negative attitudes the learning process will be hindered.

The phase of readiness begins with the student's acceptance of the concept of family planning as a means to better health and welfare for individuals, the family, and the community. During this phase she also begins to perceive her functions, as a person and as a future nurse or midwife, in the provision of family planning services. At the same time she begins to be aware of her limitations in this respect — her lack of the necessary knowledge and skills and of the understanding needed for her work in situations that require sensitivity and perception.

The phase of involvement is a natural sequence to readiness. During this final phase the student begins to learn in earnest. At this point the teaching and learning about family planning become more specific — dealing with methods of birth planning, record-keeping, follow-up care, etc. At the same time efforts are made both to apply the acquired knowledge, skills, and understanding to the solution of theoretical and practical problems (the latter in real life situations) and to evaluate performance in this respect.

EVALUATION OF EDUCATION AND TRAINING

The importance of evaluating an education and training programme should not be underestimated, especially when the programme involves

such a new field of study as family planning, where experimentation and speculation are the rule rather than the exception.

If education and training can be considered as planned change, in terms of improvement in the behaviour of the learner, then the effectiveness of an education and training programme will be determined by the behaviour of the learner on graduation from the programme. In order to measure the improvement it is necessary to have a certain amount of baseline information, which should be obtained through observation, performance tests, questionnaires, interviews, etc., when the student enters the programme. Measurements thereafter can be taken progressively, i.e., intermittently throughout the programme, at the termination of the programme, and even during the graduate's career. The achievement of students in examinations, the level they achieve in their subsequent careers, the evaluation of their work performance, and the response of society to the services they provide are all criteria for determining the quality of education and training (i.e., the quality of the course content, the methods of teaching, the faculty, the students, and the facilities and equipment).

The performance of each student is evaluated in terms of established criteria or objectives, examples of which, in relation to family planning content, are given on pages 30-35. This completes the process originally planned for education and training programmes — the establishment of performance-oriented objectives, the development of means of achieving the objectives, and the evaluation of learning in relation to the objectives

CONCLUSION

Experience has shown that to equip nursing and midwifery personnel with the necessary knowledge and technical skills concerning family planning methods is not enough. They must be educated to appreciate the need for family planning as a health measure and then to accept that they have a duty not only to teach those who express the need, but to seek out those who may be in need and guide them to the proper services for care. Experience has also shown that, while students can be proficient in fulfilling the educational requirements related to family planning, they are sometimes unable to apply their knowledge and skills in the field — for no other reason than that the curriculum content was in contradiction to deeply rooted beliefs and customs. This is particularly true in societies that are oriented to fertility and fecundity. Nursing interventions, in both their technical and educational aspects, must be viewed in the larger context of the social, political, and economic practices that militate for or against family planning in any society.

This indicates the need for a precise knowledge of the environment from which the students will come before curriculum content is developed. It also points to the need for educators who know how to approach the subject of family planning under the given circumstances. Where nursing and midwifery personnel — both those responsible for the education and training of health personnel and those who provide health services — are versed in behavioural science concepts and approaches, there is greater likelihood that family planning programmes will be successful.

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