2. Pre and post-operative care.
3. Proficiency in ambulatory surgery such as suturing lacerations and performing biopsies.
4. Ability to provide assistance in the operating room when their patients undergo major surgery.
5. Knowledge of indications for surgery and available procedures for particular problems.
6. Ability to make appropriate referrals.
7. Sufficient surgical knowledge to provide advice, explanation and emotional support to their patients.

Longmire has pointed out that "for the relatively few residents who will practice in truly isolated communities, an additional year of subsenior surgical experience should be obtained."[27]

Obstetrics-Gynecology : Members of the American Academy of Family Physicians and the American College of Obstetricians and Gynecologists have agreed on the basic core of knowledge for the family physician. [28, 29] They recommend a minimum of three months training which should include :

1. Normal growth and development of the fetus with awareness of variants.
2. Gynecology
   a. Ability to perform a thorough reproductive examination.
   b. Physiology of menstruation.
   c. Abnormal uterine bleeding.
   d. Infections of the female reproductive tract.
   e. Benign and malignant neoplasms. This includes proper procedures for obtaining cytology and appropriate biopsies.
   f. Menopause and geriatric gynecology.
   g. Assessment of surgical needs.
3. Obstetrics
   a. Antepartum care — includes pregnancy risk assessment.
   b. Labour and delivery. There should be supervised management of at least 30 deliveries.
   c. Postpartum care.
   d. Management of obstetrical emergencies.
4. Family planning and counseling.
5. An additional three months of training is desirable for those residents who will practice in remote areas which lack available obstetricians. This should include the ability to perform an emergency cesarean section if necessary to save the mother's life.

Psychiatry and Behavioral Medicine : Training in psychiatry should be integrated throughout the three years of the residency with special emphasis on the following components :

1. Skills in interviewing and communication.
2. Physician-Patient relationship.
3. Family dynamics.
4. Patient counseling.
5. Emphasis on self awareness and one's own personal and professional growth.
6. Recognition and appropriate management of emotional and psychiatric disorders.
7. Psychopharmacology appropriate to family medicine.

Lipsitt believes that many physicians do not perceive the relevance of training in the psychosocial aspects of medicine.[30] Moreover, he has emphasized the difficulty of teaching empathy, sensitvity and communication skills. Because of these special challenges it is particularly important to identify knowledgeable, enthusiastic psychiatric teachers who have the ability to motivate residents.

Orthopaedics : Studies of the work load of general practitioners indicate that orthopaedics makes up a large component of the care which they provide. [16, 22, 24, 31, 32]. Therefore, residents should be well trained in :

1. Musculoskeletal diseases including sprained ankles, low back problems, etc.
2. Application of splints and casts.
3. Ability to perform arthrocenteses on appropriate joints.
4. Management of commonly occurring fractures, especially those which are undisplaced.
5. Proper emergency treatment of severe fractures and injuries.
6. Early diagnosis of childhood developmental problems.

Emergency Medicine : Family physicians are often the first to care for victims of emergencies. Therefore they should be experts in life saving procedures and initial management of the following :

1. Evaluation and stabilization of patients with severe trauma, septic shock, burns, etc.
2. Cardiac and respiratory arrest.
3. Anaphylactic shock.
4. Coma.
5. Drug overdose.
6. Acute tension pneumothorax.
7. Severe asthmatic attack.

8. Routine emergency room procedures such as removal of foreign bodies from the cornea, nasal packing and suturing of lacerations.

Otolaryngology : Emphasis should be on the following problems which are likely to be encountered in family medicine :

1. Ability to perform a thorough ENT examination including evaluation of vocal cords.
2. Otitis media.
3. External otitis.
4. Rhinitis and upper respiratory infection.
5. Evaluation of tonsillar and adenoidal problems.
6. Removal of cerumen.
7. Management of epistaxis.
8. Management of trauma including nasal fractures.
9. Differential diagnosis of vertigo and tinnitus.
10. Evaluation of neck masses.
11. Knowledge of audiograms.

Ophthalmology : Even though rank order frequency studies indicate that family physicians require expertise in relatively few areas of ophthalmology, the following ones are critical :

1. Ability to perform a thorough examination of the eye including funduscopy, staining of the cornea and tonometry.
2. Management of conjunctivitis.
3. Differential diagnosis of the red eye.
4. Disorders of the lids and lacrimal apparatus.
5. Early recognition of iritis, strabismus and glaucoma.
6. Management of corneal abrasions and ulcers.

Dermatology : This specialty is of particular concern to family medicine educators because it incorporates a wide range of problems which become less formidable when broken into the following components :

1. Techniques such as KOH examination, punch biopsy and treatment of warts.
2. Knowledge of basic dermatological formulary.
3. Acneiform eruptions.
4. Dermatitis and eczema.
5. Bacterial infections such as impetigo and cellulitis.
6. Viral infections such as warts, herpes simplex and herpes zoster.
7. Fungal infections.
8. Cutaneous manifestations of systemic disease.
9. Drug eruptions.
10. Tumors of the skin.

Laboratory Medicine : Conferences should be devoted to :

1. The type of laboratory procedures to be performed in the family physician's office.
2. Review of indications for and interpretation of commonly ordered laboratory tests.
3. Review of pathology encountered in the health centres and on the family medicine inpatient service.

Radiology : Conferences should be held regularly with emphasis on the following types of x-rays :

1. Patients seen in the health centres.
2. Those x-rays which are taken frequently in an ambulatory setting.
3. Evaluation of acute life threatening diseases and trauma.

SPECIAL CONSIDERATIONS.

Objectives and Evaluation Forms

Following negotiations along the lines suggested above, a form can be developed which defines the curriculum content and facilitates achievement of desired objectives. **Table 6** provides an example of how objectives in opthalmology were determined in Bahrain after several meetings with the department chairman. This form includes a self rating scale for residents and space for comments and evaluation by preceptors. Similar lists have been prepared for most of the other specialty areas and may be obtained by writing the author. Objectives should be revised periodically based on input from all concerned. In this way training will remain current and relevant.

Inpatient Care : Continuity is a critical aspect of family medicine which extends to those patients who are hospitalized. In order to provide this dimension of care, programs in America are required to have their own hospital services. Frequently residents also participate in the care provided to their patients who have more complex problems necessitating referral to other services such as surgery, intensive care units, etc. In addition to maintaining continuity, this involvement within the hospital promotes positive interchange and mutual respect between family physicians and other specialists.

Size of Hospital : Those hospitals anticipating family medicine residencies should be of sufficient size to assure educational experiences in the majority of illnesses. Many consultants believe that appropriate teaching is best accomplished in hospitals of at least 150 beds with over 70 per cent occupancy. In addition, specialists must be available and committed to teach residents in those medical disciplines listed in **Table 3.**

Financial Support and Staffing : There must be adequate financial support, including competitive salaries for residents and staff. Ideally, funding should be sufficient to provide for :

A Program Director.

One fulltime staff physician in family medicine for every six residents.

Part-time staff from the foundation specialties of psychiatry, internal medicine and pediatrics.

Coordinators from the other specialties.

Record System and Data Retrieval : Considerable effort should be expended on developing an accurate and efficient record system. Patient records are a vital component of care and teaching. They should indicate clearly the method in which diagnoses are reached and the therapeutic plans for each problem. The problem oriented medical record system is ideally suited for accurate recording of data and helps to assure high quality care. [33, 37]

A method should also be devised to record the types and frequencies of problems encountered as well as the patient's age and sex. In this way profiles of problems which occur frequently can be determined. These profiles are then used to structure educational experiences which relate directly to patient needs. Later on, other demographic factors should be added such as socioeconomic circumstances, housing characteristics, family size, nationality and religion.

This data may be recorded in many ways depending on a program's resources. Simple, periodic spot checks are sufficient for most programs. The E-Book method developed by the Royal College of General Practioners is a more comprehensive system of manual recording. Many programs in America use a computer for this purpose.

In the past it has been difficult to record data because we lacked a uniform method to classify ambulatory health problems. Most codes were developed for hospital oriented care and were not adequate for the types of problems encountered in family medicine. Furthermore, those classification systems which were developed differed substantially from one another. Thus, it was not possible to compare the same type of data with other residency programs or with other countries.

This situation changed in 1975 with the publication of the International Classification of Health Problems in Primary Care. This classification was revised in 1979 [38] and has already been translated into many languages. Although there will be modifications in this code as our concepts of health and disease change and we become more influenced by the coding needs of developing countries, it is now possible to have one code which is applicable to all our Family Medicine programs throughout the world. This represents a significant improvement which makes the task of data retrieval much easier.

Research : Research projects should be encouraged for residents and faculty. As in other branches of medicine, research contributes to the vitality of the specialty and helps trainees develop an inquisitive mind and critical approach.

GENERAL COMMENTS

These curricular elements are important components of family medicine. They are the necessary building blocks but not the completed structure. In themselves, they are isolated and fragmented educational experiences. The essence of Family Medicine is the synthesis of these components into a comprehensive and personal approach to individual patients taking into account both psychosocial and organic parameters of health and disease. This is the unique contribution of family medicine and the greatest challenge to its teachers. For they must demonstrate how continuity, competence and concern can be incorporated into each patient encounter and how this care can be provided in an efficient manner within the context of the patient's family, culture and social setting. Guidelines based on these principles of family medicine assist this process by assuring an educational approach that is tangible and relevant to future family physicians, medical colleagues and our patients.

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