Colposcopy Practice And Training In Family Practice Residency Programs

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Abstract: ***Background:*** **The potential growth of colposcopy as a family medicine procedural skill is directly related to the training currently offered to family practice residents. To define whether these skills are being adequately offered to physicians who want to perform this procedure for their patients, a study was designed to investigate the current status of colposcopy practice and training in family practice residency programs.**

Methods: **A 16-item survey sent to 356 family practice residency directors in the United States included items concerning colposcopy practice, training, educational programs and strategies, colposcopy coordinator educational background, and colposcopic resource materials and equipment.**

Results: **Surveys were returned from 204 (57 percent) family practice residencies. Colposcopy was performed at 45 percent of the residencies that responded. Ninety-six percent of the respondents who did not perform colposcopy believed colposcopy is a procedure that should be performed by family physicians. Clinical teaching and supervision was the most common method of resident training (74 percent). Colposcopy training coordinators were usually family physicians (72 percent), primarily trained by gynecologists. Assistance with implementing a colposcopy training program was requested by 85 percent of those programs presently not performing colposcopy.**

Conclusions: **This study indicates that there are opportunities for further development of colposcopy practice and training in family practice residencies.(J Am Board Fam Pract 1992; 5:153-6.)**

Colposcopy is a procedure that has been introduced into family practice residency training during the past several years.[1,2] Many continuing medical education courses emphasizing procedural skills that are targeted at family physicians either include colposcopy in the workshops or are entirely devoted to colposcopy. Therefore, it indirectly appears that colposcopy is gaining wider acceptance by family physicians. The national status of colposcopy practice or training in family practice residencies, however, has not been clarified. The current utilization of colposcopy by family practice residencies may indicate the future growth of this procedure within the specialty. The purpose of the study reported here was to describe the current status of this procedure in family practice training and offer insight into the potential impact upon the discipline of family medicine.

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Methods

A 3-page, 16-question survey was sent to 356 family practice residency directors in spring 1990 to measure current practice and training in colposcopy. An introductory letter explained the purpose of the study and assured participants of confidentiality. There was one mailing of the survey with no follow-up. A self-addressed, stamped envelope was included to facilitate the return of the questionnaire.

The survey included questions about colposcopy practice, training, and specific educational programs and strategies. Information about the colposcopic educational background of the residency program colposcopy coordinators (faculty) was solicited. The use of educational principles, materials, and equipment related to colposcopy was also assessed.

Results

Questionnaires were returned from 204 (57 percent) of 356 family practice residency programs in the United States. Colposcopy was performed at 45 percent of those residency programs from which a questionnaire was returned. Reasons of-

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fered for not performing colposcopy at the time of the survey included (1) lack of trained faculty to establish the procedure (56 percent), (2) financial constraints (32 percent), (3) concern about potential conflicts with other specialists (29 percent), and (4) belief that colposcopy is not a family practice procedure (4 percent). All residencies that had previously implemented a colposcopy program have continued their programs. Of the program directors returning the survey who indicated their program was not presently offering colposcopy training (55 percent), 49 percent were considering implementing the procedure, and 37 percent were already in the process of developing a colposcopy program. Only 7 percent had no interest in instituting colposcopy training. Ninety-six percent of the directors believed colposcopy is a procedure that should be performed in family practice.

Formal training programs existed at 36 percent of the residencies. Training strategies used included clinical teaching and supervision (on-the-job training), an introductory lecture, a seminar of 2 or more hours, and structured formal training.

Training program characteristics for colposcopy in family practice residencies include teaching strategies, resources, and curricular components. These characteristics are summarized in Table 1 in terms of the percentage of programs that utilized the training elements in teaching residents about colposcopy. A wide variety of techniques and approaches to training for colposcopy appears to exist.

Table 1. Training Program Characteristics for Colposcopy in Family Practice Residencies (n = 89).

Characteristic	Percent of Programs Indicating Use
Teaching strategies	
Clinical teaching and supervision	74
Introductory lectures	33
Two or more 1-hour seminars	31
Structured training	19
Teaching resources	
Manuals and texts	75
Color slide collections	60
Journal articles	50
Educational videotapes	20
Curricular components	
Cognitive objectives	59
Recognition of pathologic lesions	47
Colposcopy skills (psychomotor)	45
Definition of competency	34
Attitudinal objectives	22
Postcolposcopy training assessment	15

Table 2. Qualifications and Educational Background of Family Practice Colposcopy Training Coordinators (n = 89).

Qualifications and Education	n	(Percent)*
Attended gynecologist-taught colposcopy workshop	38	(42.7)
Attended family practice colposcopy workshop	37	(41.6)
Preceptorship with gynecologist	28	(31.5)
Preceptorship with family physician	5	(5.7)
Self-taught	21	(23.6)
Gynecology residency training	18	(20.2)
Family practice residency training	8	(9.0)
American Society of Colposcopy and Cervical Pathology member	10	(11.2)

*Percentage total greater than 100 percent because of multiple sources of training.

Colposcopy training coordinators were most often family physicians (72 percent) followed by gynecology faculty in family practice departments (15 percent) or gynecology consultants attending patients in the family practice clinics (12 percent). Colposcopy clinics were usually resident operated with faculty precepting (67 percent), but 26 percent were primarily faculty operated with resident assistance or strictly faculty operated (7 percent). Qualifications and educational backgrounds of the colposcopy training coordinators are listed in Table 2. Colposcopy training experiences of the coordinators were varied and primarily gynecology based.

Teaching accessories for colposcopes included a 35-mm camera (54 percent), a teaching head attachment (35 percent), video monitor (11 percent), video recorder (6 percent), and Instamatic™ (Polaroid™-type) camera (9 percent). The brand of colposcope used varied.

Discussion

The purpose of this study was to measure the status of colposcopy practice and training in family practice residency programs. Assuming the results are representative of family practice residencies in general, at least 25 percent of all residencies have some type of colposcopy procedural training. Moreover, 96 percent of respondents who do not currently offer colposcopy training or practice still believe that colposcopy is a procedure that family physicians can and should be doing.

The major reasons offered for not performing colposcopy in family practice residency programs included (1) lack of trained faculty and (2) limited

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financial resources. The great number of programs providing this training, however, could encourage family practice residency faculty to become trained and begin colposcopy training in their own programs.

Another major reason for not performing the procedure related to potential conflicts with other specialties. The findings of this study, however, could support those residencies currently doing colposcopy and encountering interspecialty conflicts by showing that many programs are already doing the procedure and training residents to do likewise.

Only one-third of those responding had formal educational programs. A comprehensive structured program is an alternative to less formal approaches. For instance, educational components consist of (1) available resources to develop an adequate cognitive knowledge base (texts, articles, and audiovisuals); (2) methods to develop psychomotor skills, preferably prior to patient contact (cervical biopsy model); (3) appropriately trained faculty; (4) sufficient exposure to patients; and (5) on-going assessment of knowledge, clinical skills (evaluation and treatment), and limitations (triage and referrals). Because colposcopy often involves the evaluation of malignant or premalignant processes, reliable training approaches are needed to assure proficiency.

In those residencies with structured programs, there appeared to be adequate utilization of teaching resources. Some programs, however, could be lacking in some curricular components. For instance, fewer than 50 percent of the programs included colposcopic or histopathologic recognition, and fewer than 15 percent made use of post-training assessment (prospective case management review or examination at training termination) as a part of their training programs. Because of the relative rarity of severe dysplasia, few family practice programs see a sufficient number of high-grade cervical lesions. Additional visual resources providing examples of pathologic lesions to supplement this necessary area would solve the problem of lack of clinical examples. Few programs had skill specifications or learning objectives clarified.

Newkirk and Granath[3] have addressed colposcopy education in family practice residencies. Others have attempted to document colposcopy competency, but not in a family practice clinic.[4-6] Colposcopy competency has not been defined by the American Academy of Family Physicians, The American College of Obstetrics and Gynecology, or the American Society of Colposcopy and Cervical Pathology. A definition of competency would include an established specific skill and knowledge level of achievement. Competency strives to minimize complications and maximize correct diagnoses and treatment success and is typically difficult to define. The clinician should also be able to differentiate those patients who require treatment from those patients free of disease who do not require treatment. Proficiency levels must encompass abnormal cervical cytologic triage principles; recognition of pathologic lesions; biopsy skill; interpretations of pathologic lesions to correlate cytologic, histologic and colposcopic findings; and adherence to treatment triage guidelines. Competency, therefore, might have no concrete end point. Mastery of colposcopy occurs along a continuum, varies, and depends on many factors. There is no established number of cases or specific exposure to pathologic lesions required to become competent. Nevertheless, experience is necessary to develop competency and is directly proportional to but not independently exclusive of achieving competency. Further studies are necessary to determine and delineate competency for family physicians.

Basic curriculum components, such as specified learning and attitudinal objectives, appeared to be lacking in a large proportion of colposcopy training programs (Table 1). Lack of specific training objectives can result in training deficiencies in residents who will be expected to screen for and detect potentially fatal gynecologic conditions. Further, the almost total lack of videorecording reduces the possible impact of modern training devices. Visually reviewing pathologic cervical lesions of patients seen by residents has great learning potential as it provides immediate feedback and can be used to correct conceptual and procedural deficiencies.

Post-training cognitive and psychomotor assessment is generally lacking in current colposcopy training programs. Without adequate skill assessment, program coordinators cannot assume that an acceptable level of competence and knowledge has been achieved by the family practice residents. An incorrect assumption could have devastating consequences. The survey re-

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sults suggest a general lack of comprehensive program structure in terms of specific educational objectives and assessment.

The training and educational background of colposcopy coordinators varied. Some colposcopy coordinators are still gaining personal experience before introducing a training program for residents. Other coordinators are expanding their colposcopic expertise and proficiency. Yet, novice family physicians are being trained by other family physicians rather than gynecologists. Certainly, family physicians should learn from all experts willing to teach them. It is encouraging, however, to know we are able to learn from our family practice colleagues. Self-teaching within our specialty represents an important achievement and has implications for other types of procedural training.

Eighty-five percent of those residency programs that do not presently offer colposcopy are interested in receiving assistance in developing colposcopy as a procedure or training emphasis. The American Academy of Family Physicians is an organization able to coordinate these efforts by providing education, information, resources, and possible preceptorship programs. At the present time, there appears to be a diverse and varied approach as to how colposcopy is being taught in family practice residency programs. Program directors should be comfortable developing realistic goals, comprehensive curriculum, and innovative training techniques. Residency program directors should not feel abandoned in their efforts to start or expand colposcopy training. The results of this survey confirm that the use of colposcopy is expanding in family medicine and is eagerly pursued and awaited by many.

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