Published in final edited form as:

Am J Obstet Gynecol. 2010 June ; 202(6): 658.e1–658.e4. doi:10.1016/j.ajog.2010.03.048.

Current status of the subspecialty of female pelvic medicine and reconstructive surgery

John O.L. DeLancey, MD

Division of Gynecology, Department of Obstetrics and Gynecology, University of Michigan Medical School, Ann Arbor, Michigan, USA

Abstract

The clinical problems of pelvic organ prolapse and incontinence that affect women due to their unique role in reproduction have helped define the field of obstetrics and gynecology over the last 150 years. The recent identification of Female Pelvic Medicine/Reconstructive Surgery as an area of subspecialization within obstetrics and gynecology recognizes the growing strength of this discipline. Thirty-seven accredited fellowship programs exist at leading academic institutions and membership in specialty associated societies has more than doubled in the last 15 years. Research support from the NIH and foundations has led to exciting basic and translational research as well as well designed and conducted multi-center randomized clinical trials. Continued efforts should allow this field to establish the same national infrastructure present in the other long-established subspecialties.

Background

Women's suffering from pelvic organ prolapse and incontinence have been recorded since the earliest medical writings. Clear descriptions of prolapse are found in the Kahun papyrus (1835bce). "Of a women whose posterior belly and branching of her thighs are painful, say thou it is the falling of the womb." (Kahun papyrus, Column 1, Griffiths translation). During the 19th and early 20th century, gynecology emerged as the specialty focused on addressing these common and distressing problems. This article summarizes the current status of efforts to advance treatment and prevention for pelvic floor disorders and places these efforts into historical context.

The field of obstetrics and gynecology arose primarily from the need to address women's unique role in reproduction. Although some surgical gynecologists such as Howard Kelly aligned themselves with general surgery in the early part of this century, the close relationship between vaginal birth and pelvic floor disorders led to the current posture of our specialty that manages birth and the resultant pelvic floor injuries. In the era where opening the peritoneal cavity was often resulted in sepsis and death, transvaginal operations provided a degree of safety that allowed surgeons to develop techniques for operative repair of prolapse and incontinence. Beginning with repair of vesicovaginal fistulae, the field of gynecologic surgery was firmly rooted in repair of pelvic floor disorders. Treatment of these conditions was seen as a core element of obstetrics and gynecology.

© 2010 Mosby, Inc. All rights reserved.

Corresponding author: John O.L. DeLancey, MD, Department of Obstetrics & Gynecology, L4000 Women's Hospital, 1500 E Medical Center Drive, Ann Arbor, MI 48109-0276, Phone: (734) 764-8429, Fax: (734) 647-9727.

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

In the late 1970's subspecialization was officially recognized within obstetrics and gynecology. It was judged that additional training was needed in gynecologic oncology, maternal fetal medicine, and reproductive endocrinology and infertility beyond the typical training received during general obstetrics and gynecology residencies and these subspecialties were recognized by the American Board of Obstetrics and Gynecology. With the additional training and academic focus brought by this recognition great strides were made. Management of pelvic floor disorders was considered "what all gynecologists do" and this specialty was not considered for subspecialization. In the years that followed there was also a growing focus on primary care for women. Pelvic floor surgery became a smaller and smaller part of the typical obstetrics and gynecology practice and research in the field was limited.

Continued interest in pelvic floor disorders and a growing appreciation that improved clinical and research training would be needed to put care for women with pelvic floor disorders on a par with the other subspecialty areas of academic and clinical interest led to efforts at subspecialization. Fellowship training had started at a number of institutions and consideration of seeking recognition and accreditation was begun. Because of the mutual interest of obstetricians, gynecologists and urologists in pelvic floor problems, discussions were held between American Board of Obstetricians and Gynecologists (ABOG) and American Board of Urology (ABU) resulting in the establishment of fellowship accreditation in Female Pelvic Medicine/Reconstructive Surgery (FPM/RS). Although there is a clear need for further advance subspecialty training in these areas, routine care for the many patients with uncomplicated pelvic floor disorders will continue to be provided by generalist obstetrician gynecologists. This broad effort will be needed in view of the projected 45% growth in demand over 30 years.¹ Further work will be needed to clarify how many subspecialists are needed and whether the current compliment of training programs is sufficient.

Establishment of FPM/RS Training Program Accreditation

The FPM/RS Board consists of three Gynecologists and three Urologists with the Executive Directors of ABOG and ABU serving in an *ex officio* capacity. This arrangement of equal representation between gynecology and urology was well suited to the mutual interest in these problems and has been a remarkably collegial collaboration. In the first phase of fellowship development there were approximately 25 programs that achieved accreditation. These programs were led by existing pioneers within the field, most of whom were self-trained or who had gathered additional experience through extended visits to specialty units. The number of programs stayed static for a number of years until individuals who had received training in the newly accredited programs reached a stage in their career when they would start their own programs. The current compliment of programs stands at 37 with continued new applications arriving each year. An indication of the breadth of this training is shown in Table 1 that summarizes the table of contents for the American Board of Obstetricians and Gynecologists Guide to Learning in Female Pelvic Medicine/Reconstructive surgery. (Table 1) During this early phase of development interest among Urology programs at becoming accredited was limited. Although there were many excellent subspecialty training programs within urology (for example, Urologic Oncology and Pediatric Urology) accreditation of these by the ABU had not been implemented. There was active debate in the urologic community as to whether board accreditation of any training programs was needed. There was also a general perception that the long established fields of Urological Oncology and Pediatric Urology should be the first to move toward accreditation and that a decision about FPM/RS would have to take place in that larger context of subspecialization in general. In this way the development of subspecialties in Urology was some years behind what had happened in Gynecology because of the long established subspecialty programs within the field of Obstetrics and Gynecology. Once this decision was taken and formal subspecialty pursued the number of Urologic programs applying for accreditation increased substantially.

Status of FPM/RS Fellowships

At the present time FPM/RS programs are accredited by ABOG/ABU but individual trainees are not examined and certified. This second step requires approval by the American Board of Medical Specialists or a similar external certifying agency. Application to ABMS for this purpose has been made. Achieving recognition by ABMS is politically complex and discussion among specialists from all medical and surgical disciplines is involved. Due to procedural issues within ABMS this issue has not yet been adjudicated. With the strong growth of the subspecialty, increased academic stature of the field, and innovative new research directions that have accompanied subspecialty training, it seems that approval will be likely. The ABU has made the decision that they will accredit subspecialties in several fields including FPM/RS and this move has been accompanied by an increase in applications for fellowship accreditation in urologically-based FPM/RS programs.

The next step in fellowship development involves the examination of candidates. A written examination is currently in preparation and should be completed in the near future. When the examination process is begun there will be a one-time opportunity for appropriately qualified practitioners who have not completed an accredited fellowship to apply for examination and subspecialty certification ("grandparenting"). After this one-time accommodation, only individuals that complete an accredited program will be allowed to sit for examination and become board certified.

The existing Fellowship programs have been growing in the depth and breadth of the experience they provide so that the training available at present is stronger than it was when the fellowship programs were first implemented. The academic productivity of programs, the strength of faculty and training, and the impact of improved teaching are all evident. The level of training throughout the country is currently of a high caliber and improving each year.

Specialty Interest Groups: American Urogynecologic Society and Society of Gynecologic Surgeons

The American Urogynecologic Society (AUGS) is the organization devoted exclusively to the field corresponding to the interests of FPM/RS and the Society of Gynecologic Surgeons (SGS) has pelvic floor problems as a major component of its activities. AUGS has experienced robust growth and development over the last decades as interest in this field has expanded. Figure 1 shows the AUGS membership over the last 15 years revealing that the membership has more than doubled during this time. There has been a commensurate increase in both the number of and quality of research projects presented at the national meeting each year (Figure 2).

AUGS activities have included not only the annual scientific meeting but also support of FPM/RS research, education, training, advocacy and patient education. In the area of research the AUGS foundation oversees 3 groups of awards (June Allyson Memorial Fund, Astellas Research Awards, and the Benson Awards). These competitive awards are focused on supporting new research in FPM/RS and are awarded on an annual basis. Growth in research in the field has developed to the point that AUGS has launched a new journal *Female Pelvic Medicine and Reconstructive Surgery* to accommodate the increased research in the field and provide a forum for society issues. The AUGS education mission includes provision of postgraduate training at its annual meeting and also providing educational objectives for residents and medical students. As a newly recognized area, AUGS has advocated for recognition of the field at a national level as well as supporting adequate reimbursement of the treatment of afflicted women.

The Society of Gynecologic surgeon's has had a long established interest in surgery for pelvic floor problems having evolved out of the Vaginal Surgeon's Society. Its elected membership

represents surgical leaders from programs across the country. An annual meeting with scientific presentations, a successful national postgraduate course, support for fellows in FPM/RS; specifically the Fellows Pelvic Research Network and educational activities for members are well established. Substantial overlap in membership and interest with AUGS has led to collaboration between the two societies.

Research

Prior to the mid 1980's there was no NIH funded research concerning the pelvic floor. Beginning at that time a small number of studies were funded regarding urinary incontinence but in the mid nineteen nineties three specific requests for applications were issued by the NIH for basic science and epidemiology proposals and for a clinical trials network. This resulted in a number of early research projects in these areas and with establishment of the NIH funded Pelvic Floor Disorders Network (PFDN). There has been continued research activity with grant submissions for individual investigator initiated grants but there has not been dramatic growth to the present time in these grants. Perhaps the most visible NIH activities have been the Female Pelvic Floor Disorders Network and the Urinary Incontinence Treatment Network. PFDN consists of seven clinical sites plus an NIH Project Director and Data Coordinating Center along with the Data Safety Monitoring Board. These networks are currently actively conducting research that assess treatment outcomes, develops and improves investigative tools, and does some limited work in pathophysiology and epidemiology.

There are a number of evident research needs at the present time. Perhaps the most important is to attract a young individual's interested in actively pursuing scientific and clinical investigation to the field. In the past there was a perception that research into pelvic floor disorders was not an appropriate career path for a junior faculty member interested in scientific investigation. With the advent of subspecialty recognition and the growing field of pelvic floor research there are excellent opportunities for opportunities for discovery and scientific advance for motivated junior faculty. Advocacy for funding proportionate to the number of afflicted individuals should help in establishing a critical number of investigators to address the highly prevalent and distressing conditions represented in this discipline.

Although research into the basic pathogenesis of pelvic organ prolapse and incontinence have lagged behind other areas in scientific investigation this situation is changing. The current spectrum of NIH funding is shown in Figure 3. It shows that between 2005 and the present there have been 21 RO1 applications where active at some point during that time as well four R21 and three K23 proposals. There has been funding for two P50 grants through the Office for Research on Women's Health sex and gender factors involving women's health as well as the two networks that are U10 awards. Efforts should be made to develop programs for training fellows in research similar to programs currently sponsored by NIH for trainees in the other subspecialties.

Conclusion

The area of Female Pelvic Medicine and Reconstructive Surgery is an actively growing and vibrant new scientific discipline. There remarkable opportunities for junior faculty members in this area to make significant contributions. As the field gains in recognition and strength it should provide important insights into treatment that will both prevent the occurrence of disease as well as improving its treatment.

References

1. Luber KM, Boero S, Choe JY. The demographics of pelvic floor disorders: current observations and future projections. *Am J Obstet Gynecol* 2001 Jun;184(7):1496–1501. discussion 1501-3. [PubMed: 11408873]

Figure 1.
American Urogynecologic Society Membership from 1994 to 2008

Figure 2.
Number of abstracts accepted (green line) and submitted (blue line) for each annual meeting.

Figure 3.
Funded NIH grants concerning the pelvic floor that received funding at some point between 2005 and the present.

Table 1**Index to Guide To Learning In Female Pelvic Medicine And Reconstructive Surgery***

-
- I.** Anatomy
 - II.** Physiology and Pelvic Floor Including Normal Lower Urinary Tract, Colo-Rectal-Anal and Vaginal Function
 - III.** Pathophysiology of Urinary and Anal Incontinence and Pelvic Organ Prolapse
 - a.** Urinary Incontinence (UI)
 - b.** Fecal Incontinence (FI)
 - c.** Pelvic Organ Prolapse and Pelvic Floor Dysfunction
 - IV.** Treatment of Urinary Incontinence (excluding fistula and diverticulum)
 - a.** Surgical Treatment
 - b.** Pharmacological Treatment
 - c.** Behavioral Treatment
 - d.** Functional Treatment
 - V.** Treatment of Fecal Incontinence
 - VI.** Pelvic Floor Dysfunction and Prolapse - Non-surgical and Surgical Management
 - VII.** Vesicovaginal, Urethrovaginal Fistula and Diverticulum of the Urethra
 - VIII.** Rectovaginal Fistula
 - IX.** Intraoperative Injury - Prevention and Immediate Management
 - X.** Congenital Anomalies of the Female Genital Tract
 - XI.** Irritative Conditions of the Genitourinary Tract
 - a.** Urinary Tract Infections
 - b.** Sensory Disorders of the Bladder and Urethra
 - c.** Interstitial Cystitis
 - d.** Urethral Syndrome
 - e.** Sensory Urgency and Frequency Syndrome
 - f.** Non-urollogic Irritative Conditions of the Pelvis
 - XII.** Neurogenic Bladder
 - XIII.** Statistics
 - XIV.** Research and Thesis
-

* The complete guide available at: <http://www.abog.org/publications/FPMRSGUIDE03.pdf>