Published in final edited form as:

Am J Obstet Gynecol. 2020 November ; 223(5): 709–714. doi:10.1016/j.ajog.2020.08.015.

Subspecialty care for peripartum pelvic floor disorders

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Abstract

Obstetrical perineal and anal sphincter lacerations can be associated with significant sequelae. Diagnosis of short-term bowel, bladder and healing problems can be delayed if patients are not seen until the traditional postpartum visit at 4–6 weeks. Specialized peripartum clinics create a unique opportunity to collaborate with obstetric specialists in order to provide early, individualized care for patients experiencing a variety of pelvic floor issues during pregnancy and in the postpartum period. While implementation of these clinics requires thoughtful planning and partnering with care providers at all levels in the obstetrics care system, many of the necessary resources are likely available in routine gynecologic practice. Using a multi-disciplinary approach with pelvic floor physical therapists, nursing, advanced practice providers and other specialists is important for the success of this service line and enhances the level of care provided. Overall, these clinics provide a structured means by which pregnant and postpartum women with pelvic floor symptoms can receive specialized counseling and treatment.

Keywords

Birth trauma; female pelvic medicine and reconstructive surgery; obstetric anal sphincter injury; obstetrical laceration; patient education; pelvic floor disorder; pelvic floor physical therapy; peripartum

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Disclosures: The authors report no conflict of interest. Investigator support for C.W.S. was provided by the National Institute of Child Health and Human Development WRRH Career Development Award K12 HD065257.

Condensation: Development of a subspecialty peripartum clinic provides a unique opportunity for education, research, and care of pelvic floor disorders in pregnancy and postpartum.

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Introduction

Pelvic floor disorders affect many reproductive-aged women and oftentimes present during the peripartum period. For example, while obstetric anal sphincter injuries (OASIS) represent only a small subset of all obstetric lacerations at the time of a vaginal birth in the United States with an incidence of less than 5%¹, these tears are associated with significant short and long-term sequelae. In the short-term, patients more frequently experience bleeding, pain, wound infection, and healing abnormalities. Other postpartum sequelae may persist for some, having a long-term impact. Bowel control issues affect a significant number of women with OASIS, with fecal urgency experienced by up to 28%, anal incontinence in 15–60%, and rectovaginal fistula formation in 1–2% in the United States.^{2–4} After OASIS, women are more likely to have a delayed return to sexual activity and higher incidence of dyspareunia.^{5,6} Perineal pain is significantly greater in the postpartum period for women with OASIS, and may persist up to 18 months for some who have an operative vaginal delivery.^{7–9} Pelvic organ prolapse incidence is impacted by increasing vaginal parity, operative vaginal delivery, and to a lesser extent, larger babies.^{4,10} Additionally, urinary incontinence can occur as early as the first trimester of pregnancy and affects up to 33% of postpartum mothers at three months.¹¹ Together, these disorders impact the health, wellbeing, self-esteem, and psychological state of a pregnant or newly postpartum mother.^{12,13}

Traditionally, postpartum visits for women in the United States take place between four and six weeks. The May 2018 Committee Opinion from the American College of Obstetricians and Gynecologists recommends that all women “have contact” with their provider within the first three weeks postpartum; however, this may be a phone call or electronic check-in. Many women are still not seen and examined in person on this timeline.¹⁴ As such, diagnosis of pelvic floor dysfunction arising within the first postpartum month, especially in high-risk populations (i.e. women with OASIS), may be delayed. This creates a missed opportunity for early intervention for the aforementioned sequelae, such as referral to pelvic floor physical therapy or need for surgical intervention, which can in turn help prevent long-term pelvic floor issues. Further, for women with OASIS, many do not receive, or recall receiving, counseling regarding the type of tear they sustained.¹⁵ Having a dedicated appointment that provides women personalized education and counseling regarding their type of perineal laceration and pelvic floor symptoms has been shown to impact women’s decisions regarding future route of delivery.¹⁶ While the majority of women will go on to have subsequent vaginal delivery after OASIS, 35% reported that counseling influenced their chosen mode of delivery, and 54% expressed no regret with their decision.

A variety of specialized peripartum clinics for women have been described in the literature, with 10 clinics internationally outlined in a review by Elliot et al.¹⁷ The first of these clinics was reported in the United Kingdom in the early 2000s.¹⁸ Since that time, specialty clinics have been developing across the United States, as early as 2007, suggesting this number is likely an underestimation.¹⁹ We believe these clinics, which act to supplement the care administered by obstetric specialists, provide an important service to a group of individuals who require close follow up in the peripartum period. Surgical or procedural intervention has been reported in 9–25% of patients seen in these clinics with sphincteroplasty being the

most common surgery required.²⁰ Female Pelvic Medicine and Reconstructive Surgery (FPMRS) subspecialists are uniquely positioned to provide collaborative care for these women given their training in obstetrics, sphincteroplasty, sacroneuromodulation, pelvic floor disorders, bladder dysfunction, and complex vaginal and perineal reconstructive surgery.

The objectives of this article are to describe the steps needed to implement a peripartum subspecialty clinic into one's practice, highlight the experiences of three well-established clinics in the United States, and illustrate why these clinics fulfill an important niche in the obstetric community.

Getting Started

When designing a peripartum specialty clinic, there are many important considerations during the initial planning that will help ensure success with implementation (figure 1). Of paramount importance is obtaining support from within one's institution, including from both the administrative leadership and obstetrical specialists who will serve as the referral base. It is important to emphasize that the aim of a peripartum specialty clinic is to work together with obstetrical providers to support women with pelvic floor disorders related not only to pregnancy, but also in the postpartum period. This collaboration can thereby serve to offset the burden of some postpartum care in busy obstetrical practices. As these clinics create a unique opportunity for patient care in the broader health system, they, in turn, can be associated with positive publicity, high patient satisfaction, and a source for new consultations that are revenue-generating. In an unpublished study of patients at the Michigan Healthy Healing After Delivery Clinic, over 95% of women surveyed strongly agreed with the following statements: "I was satisfied with the care I received," "I feel empowered through the education provided about my condition," and "I would recommend this clinic to a friend" (Suresh *et al*, 2019).

The next steps in the development process are related to the clinical logistics of implementing a new service line. These include deciding upon the target patient population, where patients will be seen, timing of appointments and establishing a referral system. Our current practice is to see all patients with OASIS who delivered at our institution within one to two weeks of delivery, as well as any postpartum patients with advanced or complex lacerations, episiotomy complications, infection, abnormal healing of obstetrical lacerations, urine and bowel control issues, urinary retention, dyspareunia, persistent vaginal or vulvar pain, and fistulas. We encourage providers with patients expressing pelvic floor disorder concerns, up to one year from delivery, to contact us to evaluate whether or not a consultation is indicated. We also offer antepartum consultations for patients with history of or newly developed pelvic floor disorders.

In our experiences, any gynecology office space is sufficient for seeing this population of women. Common equipment needed in addition to the standard items in gynecology examination rooms include equipment for suture removal, wound irrigation, silver nitrate, topical anesthetic (i.e. 2% lidocaine jelly or 2.5% lidocaine-2.5% prilocaine cream), equipment to perform incision and drainage of abscesses as well as suturing, trigger point

injection equipment, vaginal dilators, and pessaries. Endoanal ultrasound is a useful diagnostic tool for women experiencing anal incontinence. Anorectal manometry and anosscopes are also helpful diagnostic adjuncts. The addition of baby changing stations in patient restrooms and a space for nursing/pumping is important as well.

For appointment timing, our model is to see all patients within one to two weeks of delivery when a referral is placed postpartum for OASIS or a laceration issue, but up to one year postpartum for referrals placed for other pelvic floor disorders. We recommend holding appointment slots for this patient population in order to provide access on this timeline. Another consideration is whether or not a dedicated block of time, such as a weekly afternoon clinic, will be utilized for all of these patient appointments. There are pros and cons to each of these practice models, and within the United States clinics, both practice models are in place. Prior to starting a subspecialty peripartum clinic, volume of referrals is difficult to anticipate. It may be more prudent initially to have scattered slots within a regularly scheduled patient clinic and then transition to a dedicated block of time to help with clinical efficiency when referrals increase. If volume permits, a dedicated block time affords the advantage of new mothers to share their experiences in the waiting room and can even facilitate the establishment of new mother support groups.

Creating a system for referrals during pregnancy and in the immediate postpartum through the electronic medical record is essential. Our practice is to have all patients with 3rd and 4th-degree lacerations referred at the time of delivery by utilizing an alert when OASIS are noted in the medical record. Patients are then instructed about the referral and provided with educational material on the postpartum unit. A dedicated nurse from the clinic subsequently contacts the patient to reinforce postpartum care recommendations and schedule an appointment. This has been a critical component to the success of our subspecialty clinics, as the nurse can evaluate the appropriateness of the referral, facilitate appointments outside of a centralized scheduling system, triage any immediate patient concerns, and educate the patient on self-care before the scheduled appointment. Additionally, consult orders can be placed in the outpatient setting for all other patients with antepartum and not-immediate postpartum concerns. It is important to note that these steps can take a significant amount of time to develop and implement depending on the electronic medical record in use; developing the referral infrastructure should be initiated early in the process.

The most common challenges in development and implementation revolve around ensuring providers and patients understand the referral process. For providers, this requires education of individuals at every point of contact with patients in the peripartum period: Ambulatory obstetric providers, appointment coordinators, both labor and delivery and postpartum nurses, advanced practice providers, certified nurse midwives, and laborists, hospitalists, and nocturnists. It is important these individuals understand the services being offered and the referral process so that accurate and consistent information can be provided to the patient. For patients, it is important she understand the purpose for the referral and process for being seen. Solutions for these challenges include educational seminars for providers, an established point of contact for patient or provider concerns, and easily accessible, accurate information, such as a website and patient pamphlets, that can be utilized by both patients and providers to address common questions regarding the subspecialty referral.

Clinical Considerations

Once appointment scheduling is in place, it is imperative to consider the individual appointment structure. Intake forms are an efficient way to gain patient information (Supplement 1). For the purposes of this article, we will specifically address the intake of women with OASIS in the immediate postpartum period as this is the most common referral seen in our clinics. For these patients, it is our practice to obtain a thorough obstetric history, including delivery type, laceration incurred, duration of the second stage, newborn weight, fetal presentation upon delivery, and repair technique utilized. This information is paramount to guide counseling, with risk-stratification for future deliveries, once the patient has “graduated” from the clinic. Upon initial presentation, patients complete a battery of validated questionnaires including (1) The Edinburgh Postnatal Depression Scale (2) Pelvic Floor Distress Inventory to screen for symptom severity related to pelvic floor disorders (3) Visual Analog Scale to assess degree of pain (4) Fecal Incontinence Severity Index to evaluate symptoms of anal incontinence and (5) Urinary Distress Index-6 to assess for symptoms related to any urinary dysfunction.^{21–26} Women are also screened for breastfeeding difficulties. We perform a physical exam that includes a modified pelvic exam for patients immediately postpartum. This modified exam includes inspection of the perineum and posterior vaginal wall using half of a speculum placed on the anterior vaginal wall. This permits the provider to evaluate the anatomy, healing process, and perineal body length, while also respecting patient discomfort in the early postpartum period. Many women have concerns about undergoing a pelvic exam so soon postpartum and what the vulva looks like after childbirth. Utilizing a mirror held by the patient can be helpful to provide patient ease and education on her anatomy. The pelvic floor musculature is palpated to assess for tenderness, levator ani avulsion and overall strength. Inspection of the anus, noting the resting tone and morphology with voluntary squeeze, presence of any fecal soiling, and other concurrent pathology, such as hemorrhoids, is recommended for all patients. A digital rectal exam should be performed for all 3c and 4th degree lacerations, and considered for 3a and 3b lacerations depending upon the appearance and clinical symptoms, as occult, unrecognized fourth-degree lacerations, fistulas, and persistently separated anal sphincters (up to 16%) are not uncommon in this population.²⁷ Once the exam is completed, patients are educated on the laceration incurred, perineal care and steps for pelvic floor rehabilitation. The plan of care is communicated with the referring provider, obstetrician or midwife providing antepartum and postpartum care, and to the provider (including the trainee, when applicable) who performed the delivery. This is an important component for a subspecialty clinic, as it establishes a close relationship with the obstetric specialists and creates a dialog for any additional questions or concerns. Typically, uncomplicated patients are referred back to the primary obstetric provider after the initial visit. If healing concerns or other pelvic floor dysfunction exists, follow-up in the specialized care clinic is arranged accordingly.

Enlisting the assistance of additional support staff and team members is also essential to the success of this kind of clinic. Nursing, advanced practice providers and pelvic floor physical therapists are imperative for clinical efficiency and to provide optimal patient care. Nursing support can help with patient triage and pre-appointment outreach, obtaining medical

records, and assistance with both office visits and patient follow-up. An advanced practice provider may also evaluate patients who have OASIS and no clinical sequelae or for follow up of appropriate concerns. We believe any woman who underwent vaginal delivery, especially one complicated by OASIS, can benefit from seeing a pelvic floor physical therapist; identification of knowledgeable pelvic floor therapists is essential. If access to specialized physical therapy is challenging, one also can explore the possibility of group physical therapy visits. Women's health physical therapists can be identified at the following website: www.findapt.org or www.aptapelvichealth.org. Also, while many academic institutions are equipped to perform transvaginal, transperineal and endoanal ultrasound routinely in the clinic, determining what imaging support is available at one's institution is recommended. Lastly, depending on resource availability, we have found that collaboration with psychology and gastroenterology is valuable in the care of these patients.

Once these logistics have been established, there are several considerations that will help with the patient experience. The development of a website with educational resources and clinic information may be useful. Examples from our clinics can be found here: www.clevelandclinic.org/postpartumcareclinic; <https://www.umwomenshealth.org/conditions-treatments/healing-after-delivery>; <https://www.nm.org/conditions-and-care-areas/womens-health/obgyn/pelvic-health/peapod-clinic>. Pamphlets available on postpartum units and in ambulatory obstetric practices can help familiarize patients with the clinic, while also providing a springboard for providers to discuss the referral. Similarly, directed patient marketing and outreach within the community are good ways to increase awareness. Publicizing the available services and providing education on obstetric pelvic floor trauma is critical to improving care for this patient population. Education should also be aimed toward attending physicians, residents, midwives, advanced practice providers, and nursing staff on obstetric and postpartum units. This can be accomplished through departmental grand rounds, educational lectures, and attendance at administrative meetings. Lastly, as mentioned above, establishing a support group for women with OASIS can be very helpful; many women feel alone in their birthing experience.

Experiences from peripartum specialty clinics:

The authors are FPMRS specialists at academic medical centers in the United States. Table 1 highlights information on the key clinical experiences from the three peripartum subspecialty clinics, who have cared for over 4500 patients to date. The majority of patient referrals come from within our academic centers, and a small proportion comes from external institutions. This varies from site to site and is related to the duration since the clinic's establishment. A recent study from the University of Michigan found that almost 50% of patients who required surgical intervention were from outside institutions²⁰.

Why these clinics are important

There are a variety of benefits to developing a peripartum pelvic floor disorder clinic staffed by fellowship-trained, board-certified FPMRS subspecialists. These clinics provide a unique opportunity to provide close and immediate collaborative care to women with OASI and other pelvic floor disorders surrounding their pregnancies and postpartum. These clinics in

our experiences are associated with high referring provider satisfaction, as the goal is to provide collaborative care for patients who will ultimately return to their primary obstetric provider for their routine postpartum visit. These clinics may allocate resources more effectively by avoiding visits to an obstetric provider for specific pelvic floor concerns. Further, subspecialty clinics can fulfill a niche of quality improvement. Patients express high satisfaction with the tailored education and care provided, which in turn reflects positively upon the hospital system offering this unique service line. Additionally, these clinics offer an exceptional opportunity for trainee involvement and education, as residents and fellows often do not see or care for the immediate sequelae of the vaginal births they are assisting in. For example, it is well established in the literature that trainees do not feel comfortable with OASIS repairs at the end of their residency.^{28–32} This kind of specialized clinic exposes trainees to the natural history of OASIS, the sequelae of operative vaginal delivery and various peripartum pelvic floor disorders, enabling the trainee to be better prepared to care for this patient population. This should, in turn, translate to better care for this population of women when these trainees graduate and are in practice. Previously published work suggests a postpartum referral to a FPMRS specialist can increase provider success in OASIS-related medical litigation.³³ It is possible, then, that an individual offering this service line could help reduce the risk of litigation in the referring obstetric practice group. These clinics also provide a much-needed avenue for research in an area where evidence-based care is still lacking and an opportunity for centers to collaborate in order to advance the field. Lastly and perhaps most importantly, we believe that early peripartum intervention and rehabilitation will help reduce the possibility of future pelvic floor disorders in these women.

Conclusions

Peripartum pelvic floor disorders have significant consequences for expecting and newly postpartum mothers. Appropriate care is essential to a healthy pregnancy and postpartum recovery, which can be addressed with a multi-disciplinary, subspecialty peripartum clinic. These clinics, which can be established with careful planning, create an opportunity to improve patient satisfaction and outcomes, educate patients and providers alike, and contribute to the growing body of evidence-based practice in this area.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgements:

We would like to acknowledge Dr. Dee Fenner, who is a true pioneer in the care of peripartum women and without whom none of these subspecialty pelvic floor disorder clinics would exist.

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Figure 1.

Flow diagram for development and implementation of a peripartum pelvic floor disorder clinic. Reassessment and modification of workflow, along with obstetric provider communication, should be ongoing.

Table 1.

Experiences from three peripartum subspecialty pelvic floor disorder clinics in the United States.

	Cleveland Clinic	Northwestern University	University of Michigan
Year established	2017	2015	2007
Number of patients seen to date	300	2000	2,200
Appointment model	Blocked time with scattered clinic slots as needed	Weekly half-day blocked clinic	Weekly half-day blocked clinic
Most common referral indications	OASIS, obstetrical laceration complications, urinary retention, urinary incontinence, anal incontinence, perineal pain, dyspareunia	OASIS, urinary retention, urinary incontinence, anal incontinence, perineal pain	OASIS, obstetrical laceration complications, rectovaginal fistula, pelvic pain/dyspareunia, prolapse, anal incontinence, urinary incontinence
Patients with OASIS	64%	93%	60%
Antepartum consultations	1%	5%	1%
Surgical interventions	6%	2%	9%