

# The “Mothers’ Pelvic Floor Support (RECOUP) Clinic” Referral Patterns in Washington DC Area of the United States

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## Abstract

**Introduction:** Childbirth entails many physical, emotional, and societal changes and repercussions, including postpartum depression affecting 20% - 30%, postpartum blues, and post-traumatic stress disorder. We hypothesized that many physical and mental health manifestations of pelvic floor disorders might be masked by the ordinary course of postpartum recovery and not referred out for specialized evaluation. Leveraging our RECOUP (Mothers’ Pelvic Floor Support) Clinic, we explored the referral patterns to this clinic to test our hypothesis. **Methods:** The study is a single-center observational study including women who presented to the RECOUP Clinic. The clinic’s target patient population includes those with a perineal injury, instrumental delivery, urinary retention, urinary or fecal incontinence, pain, or pelvic pressure associated with childbirth. **Results:** One hundred and one women were evaluated in the RECOUP Clinic. 45/101 (45%) were not referred but found their way to the clinic through social media and the internet. Very few patients 4/101 (4%) were referred with anal sphincter injuries. (52/101, 51%) were referred after many requests by the patients. **Conclusions:** Over ninety percent of women evaluated at RECOUP Clinic are self-referred or referred upon the mother’s request. There is an opportunity for physicians and other providers to become more familiar with dedicated clinics for postpartum pelvic floor care. Enhancing such clinical services allows one to reach patients who otherwise will go unserved. **Summary:** Childbirth is an event with substantial ramifications that should be addressed, and we believe a specialized clinic is an optimal facility, so the RECOUP was founded. In this paper, we explored the referral patterns to our RECOUP clinic.

## Keywords

Levator Ani Muscles (LAM), Enovaginal Ultrasound, Referral Patterns

## 1. Introduction

Childbirth is generally a celebrated event in a woman's life. It includes many physical, emotional, and societal changes during pregnancy, childbirth, and postpartum. The ramifications to the pelvic floor include pelvic lacerations, pelvic muscle injury, and urinary and fecal incontinence [1] [2]. Another aspect of traumatic delivery is that postpartum depression affects 20% - 30% of all women [3] and postpartum post-traumatic stress disorder (P-PTSD) with a prevalence of between 1% - 16% [4]. P-PTSD correlates with traumatic delivery, including instrumental delivery, combining physical trauma and emotional stress [5] [6]. Pelvic floor injuries are often overlooked, with health care professionals chalking the different symptoms to the physiologic changes associated with childbirth causing underdiagnosis of pelvic floor trauma.

Proper postpartum pelvic floor care can be provided by a specialized clinic covering all aspects, preferably in a multidisciplinary manner inclusive of behavioral health specialists. The "Mothers' Pelvic Floor Support (RECOUP) Clinic" was founded based on the fact that many physical and mental health manifestations of pelvic floor disorders might be viewed as the ordinary course of postpartum recovery by the patients and the providers and not referred out for specialized evaluation.

This RECOUP clinic provides care to women who suffered pelvic floor trauma during childbirth, including those who report prolapse symptoms, urinary or fecal incontinence, and those who had instrumental deliveries or perineal injuries. During their visit, their symptoms are addressed, and physical examination and 3D imaging of the pelvic floor are performed. This paper aimed to explore the start-up and referral patterns to the RECOUP Clinic.

## 2. Methods

The study is a single-center retrospective analysis of our database, approved by the Institutional Ethics Committee (IRB) of the Inova Health System, Falls Church, VA. The study population consisted of women who presented to the INOVA mothers' pelvic floor support (RECOUP) clinic from its initiation in 2016 till 2021, including all comers. All patients gave their informed consent to join the study. No analysis was performed to determine the minimum number required for the study as this was an observational study. The target patient population of the clinic included all those who may have had a substantial perineal injury, instrumental delivery, urinary retention, urinary or fecal incontinence, pelvic pain, or pressure. Presently, the women who suffer a third or fourth-degree tear at delivery in our medical system are referred to the clinic; other cases are referred when the obstetrician/gynecologist deems it necessary.

The services of the RECOUP clinic include history taking and using validated questionnaires seeking for pelvic floor dysfunction. These include the Pelvic Floor Distress Inventory [PFDI], which consists of the pelvic organ distress inventory 6 (POPDI-6), colorectal anal distress inventory 8 (CRADI-8), and the

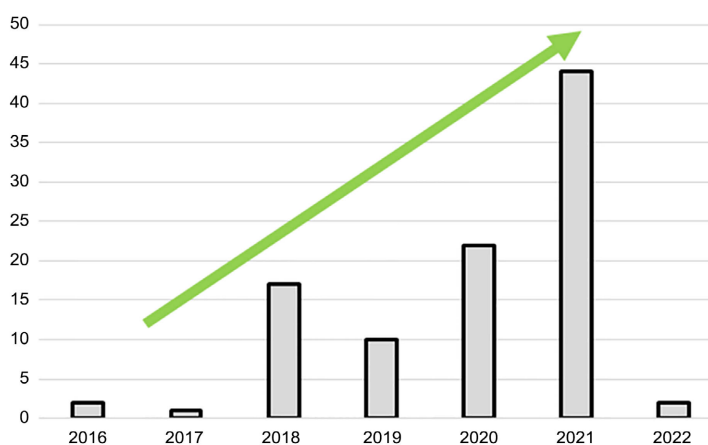
Urinary distress inventory 6 (UDI-6); as well as the Pelvic Organ and Pelvic Floor Impact Questionnaire [PFIQ]) [4]. Another questionnaire is used to evaluate sexual function—the pelvic organ prolapse/Urinary incontinence sexual questionnaire [7]. We use the Edinburgh Postnatal Depression Scale (EPDS) questionnaire [8] and the City Questionnaire inconsistently to assess signs of post-traumatic stress disorder. Mainly because a perfect screening method has not been developed yet.

The second stage is a physical examination of the pelvic floor, with the quantification for prolapse using Pelvic Organ Prolapse Quantification (POP-Q) [9]. The third is a 3D endovaginal ultrasound investigation of the pelvic floor using a 9 - 16 MHz, 360° rotational transducer (type 8838, BK Medical, Peabody, MA) using previously published protocols [10]. 3D endovaginal ultrasound has been shown to allow imaging of the pelvic floor. This method allows for high-resolution imaging, which is fast, low cost, and without radiation [11] [12]. The next step is creating a treatment plan. To gather the data regarding the referral pattern, each electronic medical file was manually explored for the referring caregiver and any additional information regarding the complaint from that encounter if it was accessible.

**The results are presented as numbers and percentages.**

### 3. Results

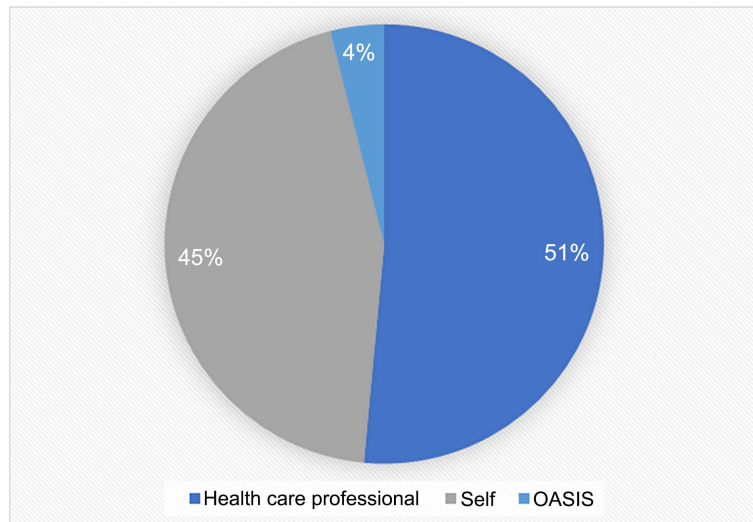
Our clinic has been in practice since 2016, with a substantial rise in referrals from January 2018. To date, 101 women have been referred to the clinic. Over the years, more and more patients came to be assessed in the clinic, reaching one hundred patients at the beginning of 2022. Very few were presented between 2016-2017. In **Figure 1**, the distribution of patients over the years is shown. The clinic start was slow: In 2016, only two women and in 2017, only one woman was seen at our Urogynecology clinic for postpartum issues. Afterward, the trajectory was logarithmic as in 2018, 19, 20, and 21, respectively, 17, 10, 22, and 44 patients utilized the RECOUP Clinic.



**Figure 1.** Number of patients according to year, the arrow showing the trend.

The baseline characteristics of these patients are presented in **Table 1**.

There were several ways in which the patients found their way to the clinic. A total of 52/101 (51%) patients were referred by the primary Ob/Gyn or other health care professionals at the patients' request in cases of complicated deliveries, such as those complicated with instrumental deliveries or those with complaints of prolapse or urinary/fecal incontinence. A minority of patients were referred at dismissal after the delivery in cases of anal sphincter tears during delivery 4/101 (4%). 45/101 (45%) were not referred by their obstetricians but found their way to the clinic through word of mouth after searching social media, the internet, and the literature. The distribution is shown in **Figure 2**.



**Figure 2.** Referral patterns.

**Table 1.** Baseline characteristics.

Variables	N/mean	%/SD
Age	34.89	5.71
Ethnicity	Caucasian	51 71.8
	African American	5 7
	Asian	6 8.5
	Hispanic	2 2.8
	Other	7 9.9
BMI	25.25	4.06
Parity	1.56 ± 0.831 (1 - 2)	
Forceps	12	17.4
CS	6	8.6
OASIS	20	29
Menopause	5	7
HRT		

## Continued

Smoke			
Medical background		14	19.7
Surgical history		22	31
POP Q	Aa	-1.40 ± 0.98	-2 -2 -1
	Ba	-1.98 ± 1.18	-2 -3 -1
	C	-6.18 ± 2.74	-7 -6
	Gh	2.62 ± 0.79	2.25 2 -3
	PB	1.87 ± 0.84	2 2 -2
	TVL	7.44 ± 2.90	8 8 -8
	AP	-1.55 0.59	-2 -2 -1
	Bp	-2.02 ± 0.95	-2 -3 -1
	D	-7.6 ± 2.08	-8 -8 -8
Questionnaires	POPDI	27.34 ± 21.08	
	UDI-6	29.24 ± 25.78	
	CRAD	28.37 ± 22.07	
	PFDI total	82.48 ± 55.36	
	PIFQ bladder	22.99 ± 27.38	
	PFIQ bowel	19.53 ± 28.11	
	PFIQ vagina	27.07 ± 27.46	
	PFIQ total	66.57 ± 67.61	
	FSFI	14.54 ± 9.84	
US	Perineal rest	50.70 ± 9.46	
	Perineal squeeze	45.23 ± 8.92	
	Urethra length	34.28 ± 5.00	
	Vaginal rest	20.54 ± 7.14	
	Vaginal squeeze	16.98 ± 4.39	
	MLH	11.99 ± 10.85	
	AP	45.20 ± 6.50	
	LR	33.78 ± 5.6	
	LPDA	-5.36 ± 10.15	
	RPA	13	20.1
	RPR	21	30.9
	RPC	31	45.6
	LPA	24	20.9
	LPR	21	30.9
	LPC	20	29.4
	Avulsion right	18	26.1
	Left	14	20.3

## 4. Discussion

Our manuscript presents the growing number of patients treated in the RECOUP clinic. This is but the tip of the iceberg of the patients in need of the specialized postpartum pelvic floor clinic. This need has been presented in the paper by Prost *et al.*, exploring the different indications for the referral for a similar clinic and the high satisfaction scores of the referring providers [13].

Perineal clinics have gained popularity as they focus on perineal injury. In 2014, Brincat presented their experience of the first years of a perineal clinic and its effectiveness in early assessment and treatment of pelvic floor injury during childbirth [14]. Our clinic, to our knowledge, is the first clinic of its kind that caters to all postpartum pelvic floor disorders, including the behavioral health needs of women. Specifically, since we are an international center for levator ani imaging, our practice has the additional benefit of assessing and repairing all pelvic floor injuries, including levator ani injuries. We continuously work with other centers to acquire the necessary imaging technology and expertise to serve postpartum women. In our single center, 101 women have visited the Mothers' Pelvic Floor Support (RECOUP) Clinic since it was opened. We sought to explore the referral patterns to the clinic.

Looking through the referral pattern, we recognized that most of the patients who visited the clinic were either referred by the obstetrician-gynecologists working in our health system or through word of mouth from the other patients. The patients reported difficulty finding a medical facility with expertise in addressing pelvic floor trauma issues which necessitated inquiring about these services from their physicians and physical therapists or looking through social media outlets. Many patients expressed frustration with the feeling that many healthcare professionals dismissed the patients' complaints that something was wrong and attributed the symptoms to expected postpartum physiologic processes.

Many treating physicians were referred after multiple appointments and communication with the medical team. The time from injury to the evaluation was also longer than desired. 75/101 patients (74%) managed to have an appointment more than 100 days postpartum. In cases of instrumental delivery or perineal injury, the treatment goal of the clinic is to evaluate the patients one month postpartum to allow the swelling and edema to subside. The estimated annual number of patients to be evaluated in the clinic is 2000. This number is calculated under the following assumptions, the annual birth numbers in Northern Virginia are 40,000 births, out of which at least five percent of all deliveries may be referred to the clinic because instrumental deliveries alone comprise about five percent of deliveries [15]. Given that the Mothers' Pelvic Floor Support (RECOUP) Clinic is the only one of its kind in the mid-Atlantic region of the United States, the catchment pool is even more significant.

The patient feedback has been overwhelmingly positive, similar to previous studies [13]. After a long period of not having a diagnosis for their symptoms, an

accurate diagnosis acknowledged their feelings and affirmed their suffering. By having an accurate diagnosis, the patients could confront their experiences, trauma, and emotions and plan for the future. The patients reported time and time again that they achieved closure once they knew a valid reason for their symptoms. This experience was profound, especially for those seeking answers for months or years.

There is a better awareness of our providers' services provided by the RECOUP Clinic. Putting our patients' physical and mental health as a priority, we see more referrals by the providers. We also believe that this service is of great importance for women following deliveries, especially traumatic ones and that the service is essential given the incidence of pelvic floor trauma. Enhancing the RECOUP clinic services through social media provides an opportunity to reach patients who otherwise will go unserved.

### Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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