Patient and Referring Provider Satisfaction with a Gastrointestinal Consultation Clinic for Pregnant Patients

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ABSTRACT

Background: To improve multi-disciplinary care in pregnancy, a gastrointestintal (GI) disorders in pregnancy clinic was created. Patient and referring provider satisfaction with this service was assessed.

Methods: The first 100 patients and their referring providers were surveyed. Survey scores > 3 on a 5-point Likert scale were considered favorable. Descriptive statistics were calculated and open-ended items were analyzed.

Results: Fifty-four percent of patients and 32% of providers returned questionnaires. All satisfaction items received an average patient score of > 3.6 and provider score of > 4.1, demonstrating overall satisfaction with the clinic. Referring providers were particularly satisfied.

Conclusion: Patients and providers, in particular, report a high level of satisfaction with a GI pregnancy clinic.

INTRODUCTION

Normal physiologic changes produce dramatic modifications to the gastrointestinal (GI) tract during pregnancy. Changes occur in small bowel motility,[1] esophageal sphincter pressure,[1,2] gallbladder contractility,[3] and bile composition.[4] In addition, immunological changes occur that may lead to exacerbations of autoimmune diseases.[5,6] As a result, GI disorders represent some of the most frequent complaints during pregnancy, with some women experiencing the first occurrence of a disorder and others worsening of pre-existing disease.

Although many GI disorders in pregnancy can be managed effectively by obstetricians and primary care providers, the need for subspecialist input for both pregnancy-unique and non–pregnancy-unique GI conditions such as hyperemesis gravidarum, chronic viral hepatitis, and gastroesophageal reflux disease (GERD) has been demonstrated.[7] To address the need for high-quality care for women with GI and liver disorders who are considering pregnancy or are currently pregnant, a GI disorders in pregnancy clinic was established in 2008 at the University of Wisconsin (UW) Hospital and Clinics. This paper discusses the creation of the clinic and patient and referring provider satisfaction with this new service.

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METHODS

Creating the Clinic

Faculty in the gastroenterology division at the UW School of Medicine and Public Health with expertise in treating women's GI health issues assembled in July 2008 to determine the objectives of a GI pregnancy program. Meetings were held concurrently with providers of prenatal and obstetric care within the UW Health system to determine the need and desirability of such a program and its potential offerings. Other gastroenterologists also were queried to determine the conditions for which they would refer to a pregnancy-specific clinic.

Assessing Satisfaction

In September 2010 the first 100 consecutive patients referred to the GI disorders in pregnancy clinic were identified using the Epic Resolute application (Epic Systems Corp, Verona, Wisconsin). Patient and referring providers were mailed a 22-item questionnaire, cover letter, and return envelope. Providers were asked to consider all patients they had referred to the clinic, if more than 1, when completing their surveys. The patient survey included 9 items assessing satisfaction using a 5-point Likert scale (1 = strongly disagree to 5 =strongly agree) and 2 open-ended questions; provider surveys had 10 satisfaction items. Survey scores greater than 3 were considered favorable. The surveys were reviewed by 2 gastroenterologists and a gastroenterology clinical nurse manager for

Table 1. Respondent Characteristics: Patients

Characteristic	Total No. (%)
Mean patient age + SD (years)	30.3 (4.5)
Median gravida (range)	2 (0-5)
Median parity (range)	1 (0-3)
Referring source	
Primary care provider	13 (24.1)
Obstetrician/gynecologist	17 (31.2)
Gastroenterologist	11 (20.4)
Self-referred	6 (11.1)
Other (eg, midwife, emergency department provider)	3 (3.8)
More than one	4 (7.4)
Main reason for referral	
Worsening of pre-existing GI symptoms in pregnancy	19 (48.1)
New GI symptoms in pregnancy	13 (24.1)
New problem that developed after delivery	1 (1.9)
Prenatal counseling and/or treatment prior to pregnancy	12 (22.2)
More than one	1 (1.9)
Diagnosis[a]	
Inflammatory bowel disease	39 (39.0)
Gastroesophageal reflux disease	15 (15.0)
Abdominal pain of unknown etiology	11 (11.0)
Nausea and vomiting of pregnancy/hyperemesis gravidarum	9 (9.0)
Irritable bowel syndrome	6 (6.0)
Hepatitis	6 (6.0)
Constipation	6 (6.0)
Diarrhea	4 (4.0)
Other	6 (6.0)
Number of visits to GI Pregnancy Clinic	
1	19 (35.2)
2 to 5	29 (53.7)
>5	6 (11.1)
Change in diagnosis as a result of consultation (yes)	8 (17.5)
Change in treatment as a result of consultation (yes)	34 (63.0)

[a]Percentages do not total 100 as patients could have more than 1 diagnosis
Abbreviations: GI, gastrointestinal.

Table 2. Respondent Characteristics: Providers

Characteristic	Total No. (%)
Field of practice	
Primary care (internal medicine, family practice, other)	7 (35.0)
Obstetrics/gynecology	10 (50.0)
Gastroenterology	3 (15.0)
Other	0
Degree	
MD or DO	17 (85.0)
PA or NP	2 (10.0
CNM	1 (5.0)
Other	0
Number of referrals to GI pregnancy clinic	
1	2 (10.0)
2 to 5	6 (30.0)
>5	12 (60)

Abbreviations: MD, doctor of medicine; DO, doctor of osteopathy; PA, physician assistant; NP, nurse practitioner; CNM, certified nurse midwife; GI, gastrointestinal.

content validity and by an ambulatory nursing director for face validity. These individuals were chosen based on their experience with patient satisfaction surveys in the outpatient setting.

Patient nonresponders were contacted by phone and given the option of completing the questionnaire by phone or receiving a second mailing. Patients who could not be reached by phone and all provider nonresponders were mailed a second questionnaire.

Descriptive statistics, including means and standard deviations for continuous variables and frequencies for categorical variables, were calculated. Open-ended items were analyzed independently by 2 researchers for positive, negative, or neutral responses.

This study was approved by the Health Sciences Institutional Review Board at the University of Wisconsin-Madison.

RESULTS

Clinic Objectives and Logistics

The following objectives were established for the clinic: (1) to work closely with referring providers to offer individually tailored preconception, intrapartum and post-partum care to women with existing or pregnancy-related GI disorders; (2) to create a training site for the care of pregnant women for medical residents and fellows; and (3) to create a registry of pregnant patients with GI disorders for future research studies.

The clinic began in December 2008. Registered nurses with extensive GI experience triaged all consultation requests to ensure that referrals were appropriate.

Satisfaction Survey

One hundred patients and 62 referring providers were mailed questionnaires. Fifty-four patients (54.0%) and 20 providers (32.3%) completed the surveys. Thirteen patients (24.1%) completed the questionnaire by phone. The remainder of patients (n = 41, 75.9%) and all providers returned it by mail.

Patient and Provider Characteristics

Patient and provider characteristics are summarized in Tables 1 and 2, respectively. The most common reasons for consultation were conditions that are not unique to pregnancy such as inflammatory bowel disease (IBD), GERD, and abdominal pain of unknown etiology. Pregnancy-unique conditions such as nausea and vomiting of pregnancy/hyperemesis gravidarum were present in 20.4% of referrals. Although most patients did not undergo a change in diagnosis as a result of their consultation, 63.0% experienced a change in treatment, most commonly medication initiation or change.

Patient and Provider Satisfaction

Mean patient scores for all 9 satisfaction items were greater than 3.6 (range 3.6 to 4.7) (Table 3). Satisfaction scores were not significantly different between patients who did and who did not experience a change in treatment as a result of the consultation.

Mean provider scores for all 10 satisfaction items were greater than 4.1 (range 4.1-4.8) (Table 3).

Table 3. Patient and Provider Satisfaction

Statement	Patient Mean Score[a] (SD)	Provider Mean Score[a] (SD)
The consultation helped in the diagnosis of my/my patient(s)' problem	3.5 (1.3)	4.1 (0.7)
The consultation helped in the treatment of my/my patient(s)' problem	4.1 (1.2)	4.8 (0.4)
My doctor/I agreed with the diagnosis and treatment plan(s) which resulted from the consultation(s)	4.5 (0.9)	4.7 (0.5)
Considering the treatment(s), explanations and/or education I/my patient(s) received, the consultation improved my/my patient(s)' quality of life	4.1 (1.2)	4.6 (0.5)
The problem for which I/my patient(s) were referred to the clinic improved as a result of the consultation	3.9 (1.3)	4.6 (0.5)
Overall the consultation(s) was/were helpful	4.6 (0.8)	4.8 (0.4)
I am satisfied with my/my patient(s)' experience in this clinic	4.6 (0.8)	4.8 (0.4)
I would recommend/refer other patients to this clinic	4.7 (0.7)	4.8 (0.4)
I would recommend this clinic to other providers	N/A	4.8 (0.4)
This clinic is a valuable addition to the offerings at UW Health	4.7 (0.7)	4.8 (0.4)

[a]All items scored with 5-point Likert scale (1=strongly disagree to 5=strongly disagree)

Open-ended Feedback

Inter-rater reliability for feedback analysis was 100%. Twenty-two patients (40.7%) provided feedback under "suggested improvements," of which 13 were considered positive statements, thematically linked by their satisfaction with the expert advice they received regarding their specific GI issues. Eight patients provided suggestions that were coded as negative. These comments included a recommendation for more direct communication between clinic and referring provider, reducing patient wait times, and performing recommended testing in clinic. One patients' suggestion was considered neutral.

With regard to other open-ended feedback, 10 patients provided positive comments, all of which focused on the quality of care provided by the clinic team. A representative statement was, "I think this is a great clinic [and] much needed while women are pregnant [as] they have lots of unexpected GI symptoms/problems and you need expert advice [on] what is safe to use." Two patients commented on their experience negatively. One patient cited rudeness of the receptionist and another stated that the visit was unhelpful. The remaining 4 patients left neutral comments, 3 of whom reported feeling fine at the time of their consultation and thus stated the visit was neither helpful nor unhelpful.

Eleven providers (55%) left written feedback. Six comments were positive, 3 were neutral, and 2 were negative. The positive comments addressed the usefulness of having a GI pregnancy clinic within their referral network. One obstetrician commented, "Very positive to have this resource available to our expectant patients. [The clinic is a] great addition to [the] comprehensive care of patients." Another provider wrote, "As a GI physician … in central Wisconsin, I feel this will comfort many women during their pregnancy. The most common scenario we come across in this area [is] IBD and pregnancy. I think a second opinion from pregnancy experts [will go a] long way in alleviating some of the fears many women have during their pregnancy." The negative comments both referred to the limited availability of appointments.

DISCUSSION

Caring for pregnant women who have chronic medical conditions or who develop medical problems during pregnancy can be challenging. Given that traditional teaching in obstetrics and midwifery in the past has concentrated on obstetric matters, a collaborative effort of clinicians from different specialties has been recommended for women with medical illness in pregnancy in order to achieve the best possible outcomes through the reproductive years.[8]

In 2008 we created a GI disorders in pregnancy clinic to extend the comprehensive care offered to pregnant women in the UW Health system, as GI disorders make up some of the most common medical illnesses in pregnancy. To our knowledge, it is the second of its kind in the country. We found that GI conditions that are not unique to pregnancy were the largest reason for referral. Patients with IBD, in particular, were most frequently seen in this clinic, which likely reflects the expertise of the clinic director (Saha). Among the pregnancy-unique GI conditions, nausea and vomiting of pregnancy/hyperemesis gravidarum was most frequently encountered.

We found a high level of satisfaction with the clinic among patients and referring providers with provider satisfaction being particularly high. Based on written feedback, this may be the result of providers being pleased to have a new resource for complicated patients they would otherwise have either managed on their own or managed without expert advice. The greatest concern for providers was the inability of the program to handle the demand. Patients also were very satisfied. The majority experienced a change in treatment for their GI symptoms after being seen in the clinic and reported that the problem for which they were referred improved as a result of the consultation. Ninety-one percent reported that they would recommend the clinic to other women.

Even patients who did not undergo a change in treatment reported a high level of satisfaction. Some of these patients were seen for prenatal counseling and were not experiencing symptoms at the time of their visit. Written feedback suggests that having a specialist available to discuss the natural history of their disease

during pregnancy and create a plan should the disease become active was reassuring and helpful.

This study may be limited by several factors. First, the response rate for providers was low at 32%. Although this is comparable to the response rate reported in other mail survey studies of physicians,[9] it raises the possibility of nonresponse bias. In addition, the response rate of 54% for patients raises similar concern. As nonrespondents have in prior studies been shown to have worse health status than the population average and be less satisfied with medical care,[10] the results of this study may not be generalizable to the entire clinic population. Second, recall bias may have influenced the study's results, as the variation of time from consultation to survey completion might have influenced survey responses. Lastly, we have no data regarding satisfaction with pregnant patients referred to gastroenterology prior to the establishment of this clinic. Although our discussion with our referring providers suggested this clinic filled an unmet need within our health care system, we were unable to show that this service provides substantively different or more satisfactory care. Future assessments of the service will include pregnancy outcome measures.

CONCLUSION

We found that patients with new GI symptoms or established GI disorders during pregnancy are satisfied with a GI pregnancy specialist consultation. Providers also are highly satisfied with the service. Given the prevalence of GI disorders during pregnancy, academic gastroenterology programs should consider building expertise in this area and offering specialized service to pregnant patients.

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