Pharmacist Consultation in Individuals with Chronic Idiopathic Constipation or Irritable Bowel Syndrome with Constipation: **Results from the BURDEN-CIC and BURDEN IBS-C Surveys**

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BACKGROUND

- Symptoms of chronic idiopathic constipation (CIC) and irritable bowel syndrome with constipation (IBS-C) have a quantifiable negative impact on workplace and school productivity, as well as quality of life, with the overall goal of treatment being to relieve symptoms.¹⁻⁴
- With the wide availability of over-the-counter treatments for these conditions, individuals with CIC and IBS-C are likely to self-treat their constipation and may not present to a healthcare provider.
- The BURDEN IBS-C survey found that 76% of respondents were currently using a nonprescription treatment for their condition, including 71% of respondents who had never been formally diagnosed by a healthcare provider or healthcare extender.⁴
- Pharmacists can play a critical role in engaging with individuals with symptoms of CIC and IBS-C to address their concerns and optimize treatment.^{5,6}
- A study in Japan found that patients who consulted a pharmacist prior to purchasing nonprescription laxatives were more likely to use the appropriate medication and to identify and be aware of how to handle medication side effects.⁷
- Though underutilized, individuals who consult with pharmacists tend to be satisfied with the consultation and more likely to reconsult with a pharmacist in the future.⁸
- Pharmacists are positioned to refer these individuals to their general healthcare provider if they notice that the individual may be suffering from a more severe condition than can be relieved with over-the-counter treatments.⁶

OBJECTIVE

• The purpose of this analysis was to explore the use of pharmacists, in consideration of their position in the community setting, as medical consultants to patients with CIC and IBS-C using data from the BURDEN-CIC and BURDEN IBS-C surveys.

METHODS

- The BURDEN-CIC and BURDEN IBS-C surveys were designed to better understand the experiences, attitudes, and unmet needs of patients with CIC or IBS-C.^{3,4}
- BURDEN-CIC and BURDEN IBS-C were institutional review board-approved online surveys that used proprietary databases to identify patients with CIC and IBS-C symptomatology, respectively

– Both surveys were conducted between June 29, 2016, and January 30, 2017.

- Patients were eligible to participate if they (A) self-reported a formal diagnosis of CIC or IBS-C, or (B) fulfilled Rome IV criteria for CIC or IBS-C as determined in the Screening Section of the survey.
- Respondents were not eligible to participate if they had IBS with diarrhea, mixed IBS, undefined IBS, inflammatory bowel disease, diverticulitis, diverticulosis, spastic colon, celiac disease, cancer of the gastrointestinal tract, or if they had regularly taken an opioid (narcotic) within the past 3 months.
- Qualifying panelists completed an online, self-administered questionnaire, with answer types including dichotomous, multiple-choice, and open-ended formats, as well as Likert rating scales (1–5 or 1–7).
- The Patient Questionnaire sample was normalized (weighted) to correct for any biases in sampling or non-response using demographic and geographic distributions from the Current Population Survey as benchmarks.⁹
- Although pharmacists were not a target healthcare provider of either survey, here we focus on questions related to pharmacists and pharmacy-based care.

Age, yea Age at S Diagnos Sex, fen Race. Black Mixed Other Hispa Educatio High so Some Bachel

Figure 1. Treatments Tried Prior to Consulting a Healthcare Provider

BM, bowel movement.

RESULTS

Table 1. Demographics of Participating Respondents

	BURDEN-CIC N=1223	BURDEN IBS-C N=1681
ears, mean (SD)	49.1 (18.0)	46.2 (15.9)
Symptom Onset, years, mean (SD)	44.9 (17.7)	43.8 (16.1)
sed by an HCP, %	85%	62%
male, %	69%	73%
6		
e / non-Hispanic	65%	65%
/ non-Hispanic	13%	11%
d / non-Hispanic	3%	5%
r / non-Hispanic	3%	4%
anic	16%	16%
ion, %		
school or less	34%	36%
e college	26%	36%
elor's degree or higher	40%	28%
centages may not total 100% due to rounding. HCP, healthcare provider; SD, standa	ard deviation.	

• A total of 1223 participants with CIC and 1681 participants with IBS-C completed the survey.

• Demographics were similar between studies, with the exception that more participants with CIC had been formally diagnosed by a healthcare provider than had participants with IBS-C (Table 1).



• Among participants who had ever discussed their symptoms with any healthcare provider (including pharmacists) and had tried to manage their symptoms, many had attempted various methods of treating their symptoms—the most common being dietary changes and fiber supplements (Figure 1).

• On average, these participants had tried 3.4 (CIC) and 3.7 (IBS-C) over-the-counter products prior to speaking with an HCP

Figure 2. Word Cloud Describing Meaning of Constipation for Participants with CIC

Feeling the urge to go Large stools Heavy teeling Uncomfortable Pain/discomfort Not having a BM regularly/daily Difficult to pass stool/straining Not being able to have a BM Hard Hard stoolPressureBloating leeding treatment to have BM Small/lumpy stools/clumps

• When asked to describe what constipation means to them (free-text), participants with CIC most often used phrases around "difficult to pass stool/straining" (35%), "not having a bowel movement regularly/daily" (30%), and "not being able to have a bowel movement" (26%) (Figure 2).

• Having a bowel movement "infrequently" was most commonly defined as once in 3 days (37%), followed by once in 4-5 days (22%) and once in 2 days (20%).

Figure 3. Word Cloud Describing Meaning of Constipation for Participants with IBS-C

Pain/discomfort Gassy Back pain/lower back pain Gassy Heavy feelin Not having a BM regularly/daily Not being able to have a BM Difficult to pass stool/straining Sick to stomach/nause Large stools I Bloating Dry stools Hard stool s Feeling the urge to go

BM, bowel movement

- Similar to participants with CIC, participants with IBS-C most often used phrases around "not being able to have a bowel movement" (40%), "difficult to pass stool/straining" (30%), and "not having a bowel movement regularly/daily" (26%) when asked to describe what constipation means to them (free-text) (Figure 3).
- Having a bowel movement "infrequently" was most commonly defined as once in 3 days (36%), followed by once in 2 days (29%) and once in 4-5 days (17%).



HCP, healthcare provider.

- Most patients in both surveys had been formally diagnosed with CIC or IBS-C by a healthcare provider, with approximately one-fourth of those participants having consulted a pharmacist; very few undiagnosed participants had ever spoken to a pharmacist regarding their symptoms (Figure 4).
- Diagnosed participants with IBS-C were more likely to discuss symptoms with a pharmacist after consulting a healthcare provider (ie, medical doctor, physicians' assistant, nurse, or nurse practitioner [before, 10.4%; after, 13.9%).
- Participants with diagnosed CIC and undiagnosed participants with IBS-C were equally likely to consult with a pharmacist before or after consulting a healthcare provider.





- A slightly higher percentage of males (CIC, 34.1%; IBS-C, 28.1%) consulted with their pharmacist compared to females (CIC, 22.9%; IBS-C, 21.0%; Figure 5).
- In participants with IBS-C, the percentage of participants aged >50 years who consulted with their pharmacist was much less (14.6%) compared to those aged \leq 50 years.

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DISCUSSION / CONCLUSIONS

 Results from BURDEN-CIC and BURDEN IBS-C reveal that individuals with CIC or IBS-C who were not formally diagnosed are not using pharmacists as a source of information for managing their symptoms, even though nearly half of individuals with CIC or IBS-C are using over-the-counter medications to treat their symptoms before consulting a medical doctor / physician assistant / nurse practitioner.

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