

ADVANCES IN IBS

Current Developments in the Treatment of Irritable Bowel Syndrome

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Health Disparities in Irritable Bowel Syndrome



Christopher V. Almario, MD, MSHPM

Associate Professor of Medicine, Karsh Division of Gastroenterology and Hepatology
Co-Director, Cedars-Sinai Center for Outcomes Research and Education (CS-CORE)
Co-Director, Master of Science in Health Systems Program
Cedars-Sinai Medical Center
Los Angeles, California

G&H What did the National GI Survey II reveal about the prevalence and burden of irritable bowel syndrome in the United States?

CA The findings of the first National GI Survey were published in 2015. The National GI Survey II published in 2023 was a follow-up to that survey. This was a national population-based online survey for which nearly 89,000 people from across the United States were recruited. The survey was deployed in May to June of 2020, which happened to be right at the beginning of the COVID-19 pandemic. According to the survey, 5414 (6.1%) participants met Rome IV criteria for irritable bowel syndrome (IBS). In addition to the Rome questionnaires, as part of that survey, we also wanted to learn more about people with IBS. Survey participants were asked to complete National Institutes of Health Patient-Reported Outcomes Measurement Information System questionnaires to assess what other symptoms they were experiencing, as well as the severity of their symptoms. They were asked about the cardinal symptoms of IBS, of course, such as abdominal pain, constipation, and diarrhea, as well as other gastrointestinal (GI) symptoms such as bloating, gastroesophageal reflux, and incontinence. The survey results were consistent with those of other studies in that people with IBS experience many other GI symptoms, not just abdominal pain or changes in bowel habits. We also observed that, in general, the symptoms they experience are more severe than those in the general population without IBS.

After the National GI Survey II study ended in 2020, we conducted another study that involved deploying monthly surveys throughout 2021 and 2022 during the

pandemic, the findings of which were published in March 2025. The goal of that study was focused on trending the prevalence of disorders of gut-brain interaction (DGBIs) such as IBS. Interestingly, the prevalence of IBS nearly doubled during that period. It rose from approximately 6% at the beginning of the pandemic (May-June 2020) to 9% in March 2021, and by the end of the study in May 2022, IBS prevalence had increased to 11%. This is a striking change for a condition that already affected millions of people before the pandemic. With the increased number of people affected during the pandemic and given that IBS is already challenging to manage, this increased prevalence is likely to stretch resources even further.

G&H How are the recent nationwide surveys on IBS different from previous epidemiology studies?

CA The research stands out for a few reasons; one is its scale. As mentioned, in May to June of 2020, approximately 89,000 people completed the National GI Survey II and nearly 5500 of them had IBS. Being that this was a very large group of individuals with IBS, we were able to look deeply in terms of IBS subtypes to determine whether there were any differences in symptom severity and health care seeking among different IBS groups. The large sample size enabled us to accomplish multiple such analyses. In comparison to prior studies, which were limited by much smaller samples of around 2000 survey participants, in terms of scale, the completion rate for the National GI Survey II was just enormous. Building on top of that number, new participants were invited to take the follow-up surveys in 2021 and 2022. Altogether, from

2020 to 2022, more than 160,000 people recruited from the US population completed the survey with both the National GI Survey II questions and the additional questions on DGBIs, and this enabled us to track the prevalence of IBS as well as other DGBIs month by month throughout the pandemic.

G&H Are there racial/ethnic/gender differences in IBS prevalence, symptom severity, and health care seeking?

CA This is definitely an important area of research. Differences in IBS prevalence among different races and ethnicities have been well established. Multiple studies, including the National GI Survey II studies, have shown that non-Hispanic White adults are more likely to meet Rome IV criteria for IBS than non-Hispanic Black, Hispanic, and non-Hispanic Asian adults. This is even after adjusting for socioeconomic, comorbidities, and other factors. In regression analyses, racial/ethnic minorities still have significantly lower odds for having IBS than non-Hispanic Whites. For symptom severity,

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the National GI Survey studies have shown that, in general, clinical symptom severity is similar across racial and ethnic groups. There are some exceptions: for example, in the National GI Survey II study published in 2023, we found that Black and Hispanic individuals with IBS with diarrhea or mixed-type IBS were more likely to report more severe abdominal pain and diarrhea compared with non-Hispanic Whites. These differences were not that large or consistent throughout, so I would not necessarily rely on them. Although there may be differences, in general, symptom severity was similar across most racial and ethnic groups.

Using the May to June 2020 data from the National GI Survey II, my colleagues and I recently conducted a post hoc analysis looking at health care seeking specifically and provision of an IBS diagnosis by a provider. We

found that health care seeking was similar across racial and ethnic groups. Individuals who met Rome IV criteria for IBS were seeking care for their GI symptoms at similar rates across the various racial and ethnic groups. Interestingly, men were 20% less likely to seek care for their IBS-related symptoms than women. Another interesting finding was that among those who met the Rome IV criteria for IBS and sought care for their symptoms, men were 30% less likely to have been given a diagnosis of IBS by their health care provider compared with women. There could be several reasons for this. Men may feel less comfortable discussing their symptoms with providers or minimize their symptoms. Societal expectation of masculinity could be what holds some men back from reporting symptoms and what prevents some providers from making the diagnosis. This may reflect unconscious bias, the belief that IBS predominantly affects women. However, anyone can be affected, regardless of gender. Similarly, the post hoc analysis looked at the impact of race on provision of an IBS diagnosis. Among the people who sought care for their IBS symptoms, Black individuals were 30% less likely to have received an IBS diagnosis from their provider compared with White patients. Again, the reason for this is unclear. It could reflect cultural differences in how symptoms are communicated by patients themselves or differences in how providers interpret and respond to these symptoms that they are hearing from the patient. Again, patient or provider biases may be playing a role, or unconscious bias that IBS is predominantly diagnosed among White individuals. The lower diagnosis rates in these groups require attention and further research.

G&H Could you provide a few key insights into sociodemographic, medical, and psychological risk factors for IBS?

CA The risk factors for IBS have been reported in many studies. The National GI Survey II results were similar to previous findings with respect to gender and age. In general, IBS is more common in women than in men by a ratio of 2 to 1. It also tends to be more prevalent among younger as well as middle-aged adults, with the odds of meeting Rome IV criteria for IBS decreasing with advancing age. The differences in race and ethnicity found in the National GI Survey II have also been identified in other studies. For example, non-Hispanic White adults in general are more likely to meet IBS criteria than Black, Hispanic, and Asian individuals. In terms of medical history, it is well established that GI infections, in particular, can increase the risk of IBS. Postinfectious IBS could play a role for many individuals. Also, patients with chronic pain conditions such as fibromyalgia tend to have concomitant comorbid IBS. Regarding mental health,

the gut-brain axis is known to play a major role in the development of IBS. Patients who have coexisting anxiety, depression, or other chronic psychological stress are also at increased risk for having IBS.

G&H Have health disparities been identified in other areas of IBS care?

CA Certainly, disparities have been identified in multiple areas of IBS care, some of which I mentioned. Disparities in IBS clinical trials were examined in a recently published study. This is important because clinical trials are pivotal in providing data to support US Food and Drug Administration (FDA) approval for new IBS drugs. Currently, 8 drugs are FDA approved for IBS. In a study by Kerbage and colleagues, which evaluated 21 IBS drug trials with 17,000 participants, it was found that 77% of trial participants were female, and fewer males were included than expected. Although most of the IBS clinical trials captured race, interestingly, ethnicity was captured in only approximately one-third of the trials. Of the participants in these trials, 80% were White, whereas only 6%

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were Hispanic. This prevalence was much lower than that seen in the National GI Survey II study, which found that approximately 11% of individuals with IBS are Hispanic. These data suggest underrepresentation of certain groups of the US population in IBS clinical trials. The authors also looked at geography, which was quite unique because they identified the counties that did and did not have access to IBS clinical trials. They estimated that 3 million people with IBS live in counties that do not have access to a clinical trial. These counties were primarily rural and had higher poverty rates, lower income, and lower education levels. The authors note that the findings from these various IBS trials may not necessarily be generalizable to some groups that were underrepresented, such as men, Hispanic individuals, and people who live in rural areas. The study highlights that future trials should develop inclusive strategies for recruiting representative cohorts.

G&H How might race-gender interactions influence health care use and spending in IBS?

CA Race and gender interact in important ways that help shape both health care use and spending in IBS. In a recently published study by Shin and colleagues using Optum's claims data, health care use and spending in IBS were evaluated, which included information from over 95,000 people with IBS. Regarding gender differences, the authors found that women had higher IBS-specific costs than men. With respect to race and ethnicity, they found that Asian and Hispanic people had the lowest IBS-specific costs, followed by White patients, and that Black patients had the highest IBS-specific costs, including the highest radiology and laboratory test costs as well as highest utilization of emergency department care. In addition to identifying the rates for each gender and racial/ethnic group, the authors also examined the interaction between gender and race/ethnicity. For example, among White patients, they found that White men had more emergency department use than women. Among Black individuals, Black men were more likely to be hospitalized than Black women. White, Black, and Asian women in general had more outpatient visits than their male counterparts. This study is important because it showed not only how race/ethnicity and gender influence health care utilization in IBS, but also how the interaction between race and gender has an impact on such utilization by adults with IBS in the United States.

G&H What is the role of health care providers in addressing these disparities?

CA First, primary care practitioners, gastroenterologists, and really any health care provider should be proactive in screening all patients for GI symptoms. Because IBS can affect anyone, screening for IBS-related symptoms should be done not just in those who fit the classic profile, but in all patients regardless of race/ethnicity or gender. Second, when a patient's symptoms are consistent with IBS, of course, clinicians are going to assess for red flags or alarm features that warrant evaluation. However, for patients who do not have those worrisome symptoms, taking their symptoms seriously and not dismissing them can build trust that can help in making a positive diagnosis. Third, providers should try recognizing and thinking about any biases they may have. All of us have unconscious biases, and it is critical to think about how they might be influencing our interactions with patients and how we diagnose and manage IBS, especially in light of the recently published data I mentioned. Finally, improving access and referrals is another way providers can help patients, especially those from underserved groups. Helping patients

navigate the system can ensure timely referrals to gastroenterology, dietitians, or GI psychologists, as needed, and when appropriate encouraging participation in clinical trials.

G&H What do you think future research should focus on?

CA Investigators should continue to monitor IBS prevalence in the postpandemic era and to try to disentangle the causes behind the rise in prevalence during that period. COVID-19 could cause GI symptoms, and some infected people may have a post-COVID-19 IBS. Moreover, simply living through a pandemic could cause stress resulting in alterations in the gut-brain axis and subsequently IBS. Further research examining why IBS prevalence has increased and whether this increase is persisting postpandemic, I think, is important. More research examining disparities in IBS prevalence, diagnosis, and care in other settings is also needed. Now that there are increasing data on disparities in IBS, interventions aimed at reducing those racial, ethnic, gender, and socioeconomic disparities need to be developed and tested. More inclusive research is also needed. IBS clinical trial investigators need to enroll diverse populations that reflect the real world so that findings can be generalizable to all groups. One other area of research to focus on is novel treatments in IBS, both pharmacologic as well as nonpharmacologic. At Cedars-Sinai, we are testing a program called SynerGI, a virtual reality cognitive behavioral therapy program for

IBS developed by Drs Brennan Spiegel and Omer Liran. Recruitment for this study has gone incredibly well, which suggests that patients with IBS are looking for novel non-pharmacologic therapies. Having more researchers in the innovation space for IBS is a must.

Disclosures

Dr Almario has consulted for Greenspace Labs, Owlstone Medical, and Salix Pharmaceuticals; he also has stock options in My Total Health.

Suggested Reading

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