



# Doctors Speak: A Qualitative Study of Physicians' Prescribing of Antidepressants in Functional Bowel Disorders

Giulio Ongaro<sup>1</sup> · Sarah Ballou<sup>2,3</sup>  · Tobias Kube<sup>3,4</sup> · Julia Haas<sup>2,3</sup> · Ted J. Kaptchuk<sup>2,3</sup>

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**Abstract** Tricyclic antidepressants (TCAs) are frequently prescribed for chronic functional pain disorders. Although the mechanism of action targets pain perception, treating patients with TCAs for disorders conceptualized as “functional” can promote stigmatization in these patients because it hints at psychological dimensions of the disorder. The goal of this study was to understand how physicians prescribe TCAs in the face of this challenge. We interviewed eleven gastroenterologists in tertiary care clinics specializing in functional gastrointestinal disorders, such as irritable bowel syndrome. We found that the physicians interviewed (1) were aware of the stigma attached to taking antidepressants for a medical condition, (2) emphasized biological, as opposed to psychological, mechanisms of action, (3) while focusing on biological mechanisms, they nevertheless prescribed TCAs in a way that is highly attentive to the psychology of expectations, making specific efforts to adjust patients' expectations to be realistic and to reframe information that would be discouraging and (4) asked patients to persist in taking TCAs despite common and, at times, uncomfortable side effects. In this context of shared decision making, physicians described nuanced understanding and

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Giulio Ongaro and Sarah Ballou have contributed equally to the manuscript (co-first authors).

✉ Sarah Ballou  
sballou@bidmc.harvard.edu

- <sup>1</sup> Department of Anthropology, London School of Economics and Political Science, London, UK
- <sup>2</sup> Division of Gastroenterology, Department of Medicine, Beth Israel Deaconess Medical Center, Boston, USA
- <sup>3</sup> Program in Placebo Studies, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, USA
- <sup>4</sup> Pain and Psychotherapy Research Lab, University of Koblenz-Landau, Mainz, Germany

behaviours necessary for treating the complexity of functional disorders and emphasized the importance of a strong patient-provider relationship.

**Keywords** Functional gastrointestinal disorders · Functional bowel · Neuromodulators · Qualitative research

## Introduction

Besides its pharmaceutical value, the success of any medication depends on the physician's and the patient's preconceptions about therapy that come to play in the act of prescription. Each participant in the therapeutic relationship brings to the clinical encounter a set of conceptual and culturally specific assumptions about the role of medication, which are potentially conflicting (Kleinman 1980). These assumptions are especially sensitive in the context of prescription of psychiatric medication for chronic functional disorders due to the frequent stigma associated to these conditions (Hearn, Whorwell, Vasant 2020). In this study, we investigated the use of tricyclic antidepressants (TCAs) as treatment for Irritable Bowel Syndrome (IBS), a common functional disorder.

Functional disorders are somatic conditions that cannot be explained sufficiently through organic causes. They can cause debilitating symptoms yet often lack a precise pathophysiology and are often influenced by psychosocial factors (Murray et al. 2016). These can include chronic visceral conditions (e.g. irritable bowel syndrome, functional abdominal pain, non-cardiac chest pain, chronic pelvic pain) (Wessely, Nimnuan, Sharpe 1999) and chronic functional peripheral pain (e.g. chronic low back pain, fibromyalgia, chronic headache, temporomandibular dysfunction) and general bodily conditions (e.g. chronic fatigue syndrome or motor or non-epileptic attack conversion syndromes) (Stone et al. 2009; Yunus 2015; Kaptchuk, Hemond, Miller 2020). Furthermore, "organic" conditions such as inflammatory bowel disease, rheumatoid arthritis and systemic lupus erythematosus are sometimes accompanied by an added dimension of functional pain (Yunus 2007). IBS, a functional gastrointestinal disorder, belongs to the above-mentioned visceral chronic conditions and is one of the most common functional disorders, affecting 4.1% of the worldwide population (Sperber et al. 2021). It is characterized by chronic gastrointestinal symptoms (stomach pain, bloating, diarrhoea or constipation) and lacks a sufficient organic pathophysiological explanation (Drossman 2016; Longstreth et al. 2006). As with other functional pain conditions, current theories hypothesize a multifactorial pathophysiology involving visceral hypersensitivity, aberrant central nervous system processing and post-infectious processes (Adriani et al. 2018; Drossman 2016; Kaptchuk, Hemond, Miller 2020). Importantly, like other functional disorders, the symptoms of IBS are highly susceptible to psychosocial factors and show high placebo responses in clinical trials (Patel et al. 2005; Lu and Chang 2011).<sup>1</sup>

<sup>1</sup> In recent years, gastroenterologists have increasingly preferred the term 'disorders of gut-brain interaction' (DGBI) to 'functional bowel disorders'. The term 'gut-brain' more clearly points to the physical basis of these disorders, which, as we will see in this paper, is also a main concern for physicians who want to avoid psychologization. We nevertheless choose to keep the term 'functional bowel

Patients with IBS often endure stigma through perceived social undesirability of symptoms (e.g. unpredictable bowel habits) (Atarodi, Rafeian, Whorwell 2014; McCormick et al. 2012; Drossman 2016) as well as through implicit and explicit suggestions that functional disorders may have primarily psychological causes (Fink and Rosendal 2008; Burke 2019). Due to the epistemic primacy on the “visible” and the mind/body dualism that pervades both medical and popular discourse, the shift from “no biomedical explanation” to “psychological explanation” is an easy slide (Rhodes et al. 1999). Studies have revealed that the suggestion that this condition is “all in the head” is often conveyed by medical personnel (Fava and Sonino 2008; Burke 2019) and is widely internalized by patients (Hearn, Whorwell, Vasant 2020; Jones et al. 2009; McCormick et al. 2012; Dancy et al. 2002; Taft et al. 2014). Because the idea of “mind” is closely entwined with notions of individual “agency”, “volition” and “self-control”, (Jackson 2005; De Ruddere et al. 2016; Goldberg 2017), psychological explanations tend to assign blame to the patient. Accordingly, the diagnosis of IBS is often accompanied by the experience of self-blame, guilt and hopelessness (Hearn, Whorwell, Vasant 2020).

Tricyclic antidepressants have been shown to be an effective treatment option for IBS in multiple RCTs (Rahimi et al. 2009). They are prescribed at much lower doses than the traditional psychiatric range and are thought to regulate central and peripheral pain processing, with some effects of bowel motility (e.g. diarrhoea and constipation) (Adriani et al. 2018). Despite available evidence to support their efficacy, however, the success of antidepressants has been somewhat limited in clinical practice due to common side effects (e.g. fatigue, dry mouth, sleep disturbance, headache, dizziness) (Clouse et al. 2007), which is evident in the high dropout rates observed in clinical trials (Drossman et al. 2003). Moreover, the prescription of an antidepressant has the potential to elicit the stigma that surrounds IBS (Hearn, Whorwell, Vasant 2020).

The treatment of a functional condition like IBS with psychiatric medication runs the risk of contributing to perceived stigma by inadvertently reinforcing the idea that the illness is primarily psychological (Hearn, Whorwell, Vasant 2020). Patients’ willingness to take an antidepressant as well as their tolerance of side effects might depend on how information about this medication is communicated during the therapeutic encounter. The quality of the therapeutic encounter—and, in particular, how information about antidepressants for functional pain disorders is conveyed to patients in the clinic—is, thus, likely to be central to therapy success.

While broad clinical guidelines regarding informed consent and general prescribing practices are clear and easily available, knowledge of how gastroenterologists actually discuss antidepressants with patients in clinical practice is scarce. Our goal was to raise issues of antidepressants prescription from implicit knowledge to the level of self-reflection and explicit discussion. Through 11 interviews with gastroenterologists, we investigated how tricyclic antidepressants are prescribed—how information is communicated to patients, how clinicians

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Footnote 1 continued

disorders’ because we think that the implications and lessons of this study also apply to clinicians working on ‘functional’ disorders outside gastroenterology and with TCAs more generally.

manage expectations of improvement and character of the therapeutic relationship, and the overall shared decision making involved—in the context of IBS.

## Methodology

We recruited 11 GI physicians with expertise in the treatment of IBS at two major academic medical centres in Boston, Massachusetts, USA. These physicians typically see treatment-refractory patients who have often consulted several specialists before being referred to their clinics. Each interviewee provided verbal consent to participate in the qualitative study and for the interview to be audio recorded. The recordings were anonymous (no identifiable information was recorded) and were later transcribed. The study received IRB approval.

Our inquiry into physicians' approach to TCA prescription was embedded in a larger study that looked at physicians' overall ways of caring for patients with functional gastrointestinal disorders, which will be published in full elsewhere (Ballou et al. in preparation). The discussion on TCAs was distinct enough from the rest of the interview to deserve separate analysis. The TCA discussion took about 15 min while the entire interview lasted for about 40 min. Interviews were conducted individually, in the physician's personal office. With regard to TCA prescription, our primary aim was to query physicians on (1) the information that they discuss with patients about TCAs; (2) whether and how they set and manage expectations about their efficacy; and (3) more broadly, what they think patients want from a clinic visit and what the key components of a successful visit are (see Table 1 for the specific prompts we used to elicit physicians' views on these aspects).

We employed an iterative immersion/crystallization approach (Borkan 1999) to qualitatively analyse the interview transcripts. Authors read the transcripts independently and identified the themes that emerged from the interviews. Through several group discussions, we agreed on, and refined, the major themes.

**Table 1** Interview prompts

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What information do you usually discuss with a patient when you are prescribing TCAs?
<i>Do you build expectations for improvement? Or reduce/temper expectations? Why?</i>
<i>What is the role of "hope" in these discussions?</i>
<i>What is the role of empathy?</i>
<i>How do you discuss side effects with your patients?</i>
What do you think patients want from a clinic visit?
Walk me through the key components of an ideal/successful visit with a patient in your clinic?
<i>If you had to teach someone how to have a successful visit...</i>
<i>How do you facilitate an optimal patient-physician interaction?</i>
<i>Key ingredients for trust/rapport</i>

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Italics represent additional prompts to use if the response did not include this information spontaneously

## Findings

The insights that we gathered from our interviews can be grouped into the three themes mentioned above: (1) rationale for the use of TCAs as treatment Functional Bowel Disorders (including IBS); (2) managing expectations and (3) establishing a strong patient-provider relationship with regard to TCAs and other potentially stigmatizing medications.

### How TCAs are Discussed

The gastroenterologists we interviewed expressed specific attention to the stigma that often surrounds functional disorders and the use of “antidepressants” as medication for chronic medical conditions. All reported taking great care in explaining the physiological mechanism behind antidepressants for chronic gastrointestinal symptoms, especially chronic abdominal pain. They typically spend some time discussing evidence-based physiological mechanisms (i.e. by reshaping nerve sensitivity in the gut) and are cautious in dispensing information that might suggest a psychological cause of the illness. For these reasons, many prefer to use the word “neuromodulators” rather than “antidepressant”.

Dr. 1: And I come very much to use the term neuromodulator as a new term for the patient to understand. And it's in the context that the gut has the most nerve population compared to the spinal cord and the brain in the entire body. So that we're using a medicine to try to modify sensation at the gut level that's been interpreted by the spinal cord in the brain.

Dr. 2: What we're using it [TCA] for is not for your big brain but for the little brain, in the gut brain. [...] The dose we use is not trying to change your mind, it's trying to change the way the gut works, the gut brain.

Dr. 3: But what we've discovered is that at low doses, about a 10th or 20th of the dose that you might use for anxiety or depression, these medications are really good at turning the volume down on these abnormal sensations.

Dr. 4: We already know there's probably nothing like a tumor or an ulcer or things like that could explain your symptoms. [...] I believe you're feeling ill, I believe your symptoms are real, I want to start off with that first and foremost because I know it can be frustrating at times to be told that people think nothing is “wrong” even though, you clearly feel something is. But, sometimes, what happens in medicine for patients like you, is that we tend to focus only on the things that we can see as doctors. So, now it's left us with the things we can't see that we think could be making you sick and in your case we think it may be the nerve sensation. Sometimes with this type of disease process we make recommendations to start nerve moderating agents. If you look at why these agents were used in the past, you'll see that they're used for things like depression, anxiety, I don't think this is depression, I don't think this is anxiety.

## Managing Expectations Around Efficacy and Side Effects

Whether prompted or unprompted by our questions, all clinicians had many things to say about expectation management in the clinic, and about its importance in the context of chronic digestive conditions and TCAs treatment. To the question of whether they tend to either build up or lower expectations of improvement, clinicians responded that it depends on the scenario. Firstly, this depends on the type of patient who comes to clinic and their medical history. Almost all interviewees said that they start the consultation by asking patients about their goals and, when necessary, reframing those goals to match what is realistic in the treatment of their symptoms.

- Dr. 4: During the visit I'll ask, "What do you hope to gain at the end of this visit?" Because if they say, "I'm tired of dealing with nausea and I don't want to feel it anymore," then at that point, I start trying to lower expectations and say, "I think that's reasonable, I hope that we get rid of your nausea. With my experience, even if we are able to eventually get rid of it, it's a long process, where the middle step is fewer symptoms or less severe so that you have an improved quality of life."
- Dr. 6: If it's this terrible problem that's sort of acute, they want relief from whatever the symptoms are and sometimes that can't happen. And so we have to kind of adjust their expectations to what might be more reasonable. Not over promising anything. [...] setting again realistic expectations.

One of our major findings was that when it comes to providing information on benefits/risks of TCAs, clinicians do not deviate from the available medical data, but they may choose not to summarize all available data on their efficacy. Partly, this is because too much information "can be overwhelming" (Dr. 8), but also because expressing efficacy in terms of numbers and percentages can have a discouraging effect on the patient and might overly reduce expectations (and hope, accordingly). The following exchange on the prescription of TCAs and other medications is telling in this regard:

- Dr. 9: I hear from patients [...], "Someone said this is the drug, this is the treatment that will cure you." And I hear that a lot. And I can sell things like that, too, but I usually don't.
- Interviewer: Why not?
- Dr. 9: Because it's not true.
- Interviewer: Do you try to reduce their expectations?
- Dr. 9: I try to make it realistic.
- Interviewer: And how do you do that?
- Dr. 9: By telling them the truth.
- Interviewer: How do you know what the truth is?
- Dr. 9: Because I see the studies.
- Interviewer: From the studies, okay.
- Dr. 9: Yeah. So you would say, [...] "This will take care of your problems" but that's just not true. The data shows that [...] most people don't have complete improvement.

- Interviewer: Do you tell them those numbers?  
Dr. 9: No.  
Interviewer: Your patients? Why not?  
Dr. 9: I'll reduce their expectation too much.  
Interviewer: So it sounds like you use a data-driven approach but you don't give the number.  
Dr. 9: Right.  
Interviewer: Okay. So you try to stay realistic.  
Dr. 9: Well, realistic because there are other options. And probably because [...the numbers] are complicated.

The same attention to framing effects and the potential danger of nocebo (negative placebo) effects was paid in regard to side effects, which, especially for TCAs, can be substantial and alarming to patients.

- Dr. 3: And so when it comes to expectations, I'm very aware of the importance of sort of giving that positive beneficial effect and of the sort of nocebo effect as well. [...] And so I think if you give them every side effect under the sun to cover you medically, legally especially, you're just gonna end up sounding like a commercial where they either say this is ridiculous, I don't want to take it. Or they kind of blur you out. I want to give them practical side effects. And so for example, tricyclics, I might say, as I went through my spiel, dizziness, lightheadedness, interaction with alcohol, dry eyes, dry mouth, constipation. Am I going to talk about cardiac arrhythmias? No, generally not, because I think it's relatively rare. The risk is entirely low, especially if I do my homework.
- Dr. 4: Now, you're naturally going to look up information, side effects, you're going to see a long list of scary things that may be side effects related to the medication. I'd be lying to you if I said that these things wouldn't happen. But you have to realize that when a medication is used commonly, eventually someone is going to complain of some side effect even it's not related to the medication.

Dr. 7 wanted patients to understand the details and the complexity:

Normally, we will discuss this the first time I see them, we will discuss the various neuromodulator options and generally I encourage them to just read and think about things and I explain to them it's a lot like the life decisions they make, we make, which is trade offs, knowing risk versus benefit, but the therapeutic response versus the potential side effects.

Dr. 10 tried to encourage patience with the side-effect:

- Dr. 10: With tricyclic antidepressants... I'll tell them, "I want you to try it out for 6 weeks and then let's see what we can do past that."

Indeed, we found that many clinicians look for commitment on part of the patient to adhere to the prescription for a period of time before deciding to discontinue, despite the side effects. For example,

- Dr. 3: [...] my policy is I want you to send me a message in 2 weeks, no sooner. Unless this medication is so severe that fire is coming out of your eyes [...] I don't want to hear from you for 2 weeks. [...] And that's the point where we may start to see some improvement as well."

Similarly,

- Dr. 6: [...] let's say if the more dangerous ones, let's say you're having palpitations or you are now having difficulty driving because you're too sleepy related to the medication, please let me know, that's something we need to act upon immediately. But if it's a general tiredness that you can push through, then I ask for you to push through. But a lot of times people don't have the side effect, even if it's common. I think it's a good medication, that's the reason why I'm providing it.

### **Key Components of a Successful Visit**

Due to the chronic and functional nature of these conditions, physicians were mindful of the importance of care and attention during the therapeutic encounter. They emphasized the importance of building rapport, and hope in the patients, each in their own distinctive way.

- Dr. 2: It's all about empathy. They've got to think that you understand what they're experiencing and to me it's very important that I try to understand what they're experiencing.
- Dr. 6: The important aspects of a clinic visit are first that the patient feels they are being listened to and heard. So I often will let them talk for a certain period of time without interrupting them. I want to make sure I understand what the patient's perception of the problem is. [...] I try to be very nonjudgmental, so that there's no barrier to the patient being as honest as possible

Clinicians also mentioned several techniques (mostly non-verbal) that help them to establish a personal connection with patients. For example,

- Dr. 3: I think it's being open minded to what they say. I think it's listening, not looking at your computer. So one thing I do is I take all my notes on a piece of paper folded in half rather than typing in my computer. And when I do go to my computer to look at something, I acknowledge that I'm looking at my computer and I apologize.
- Dr. 2: Also, I try hard to have some light-hearted moments, and also add a smile, because I once had a patient tell me that I was the first doctor they'd seen in twenty doctors with this illness, and I'm the first one they've seen smile, which is really bad.

All physicians saw hope as universally critical, and saw themselves as catalysts for such state in the patient. Although its meaning was not precisely articulated, they saw hope as being strictly related to the management of expectations.

Dr. 3: I think hope is extremely important. I think many of these patients have hopelessness for two reasons. One, their symptoms are debilitating. And two, they've been told either explicitly or implicitly that their symptoms aren't valuable. And so there's this cognitive mismatch in your heads that sort of says, I feel miserable, yet everyone's telling me that I'm okay. [...] And so hope is to say, listen, I understand that your symptoms are severe. I understand that it impacts every moment of your life or a lot of your life. And I think with proper treatment, I actually do think that you can benefit.

## Discussion

Contrary to the high levels of “enacted stigma” reported in other studies on functional disorders (e.g. Miresco and Kirmayer 2006), the gastroenterologists that we interviewed, who have great expertise in functional gastrointestinal conditions, are highly sensitive to this potential issue and structure their prescription of TCAs in ways to prevent it. We found that they deal with the apprehension posed by psychological explanations in the context of IBS by centring the explanation of TCAs on the known and hypothesized physiological causes of IBS and the mechanisms of action of a TCA as a “neuromodulator”. For instance, doctors took great care in explaining that, although these medications come from psychiatry, they are prescribed in much lower dosages for IBS in order to act *on* “nerve sensitivity in the gut”. As Dr. 4 put it, “I’m not treating depression, I’m not treating anxiety, I’m treating these misfiring nerve pathways that I think are causing you to have symptoms”. They tend, in short, to deflect the discussion of TCAs away from psychological talk (see also Ring et al. 2005).

At the same time, we found that the doctors we interviewed convey information about TCAs in a way that was highly attentive to the psychology of expectations, and that they are conscious about the role that expectations play in treatment. Our interviews revealed that physicians attempt to adjust and reframe patients’ projections of improvement at various junctures of the therapeutic process, with the goal of shaping realistic expectations of patient therapeutic outcomes and patients’ confidence in the efficacy of medication. This was felt to be particularly crucial in the discussion of TCAs side effects. On this point, all physicians recommended that patients weather the initial symptoms of TCA side effects in order to reap the benefits of the treatment in the long term. They mitigate patients’ worries about side effects by highlighting the rarity of serious side effects and avoiding dispensing information that might be more alarming than beneficial. The information given to patients is not a simple statement of the “facts”; rather, it is flexibly applied to emphasize different aspects of benefits and potential side effects. We found that the interviewed clinicians adjust expectations by leveraging the expansive meaning of adverbs such as “sometimes” or “rarely” or modal verbs such as “it *may* work”, while keeping their projections realistic in order to avoid disappointment in the case of failure. Overall, they agree towards a course of

treatment through a shared decision-making process (Charles, Gafni, Whelan 1997) that carefully navigates the perils of stigma and psychologization.

We suggest that, by attentively tailoring their interactions to both reduce stigma and improve tolerance and acceptance of the drug, clinicians play a key role in managing two kinds of “paradoxes” that have been discussed in the literature on chronic conditions. First, they deal with what Mattingly (2010) has termed the “paradox of hope”: chronically ill patients, such as patients with IBS, find themselves straddling the boundary between hoping enough for an eventual recovery and embracing any positive effects of the treatment while, simultaneously, keeping hopes in check to avoid the possibility of despair when treatment fails (see also Corbett, Foster, Ong 2007; Eaves et al. 2016; Lohne and Severinsson 2004; Morse and Penrod 1999). The clinicians we interviewed considered “hope” as crucial in the therapeutic process and saw it as intimately entwined with expectation management (Kube et al. 2019). Second, clinicians are involved in the closely related “paradox of expectations” (Büchel et al. 2014; Wiech 2016). Evidence has shown that positive expectations, at least in acute laboratory experiments, are beneficial in producing “placebo effects”, yet expectations in clinical practice that appear too strong to the patient have the opposite effect of dampening or nullifying these effects. Moreover, if unfulfilled, these can be harmful because they may lead to disillusionment in any type of treatment (Fava et al. 2017). Overall, the interviewed physicians’ approach in dealing with these two paradoxes in the context of TCAs prescription aligns with what research suggests is the most effective way of harnessing placebo effects and preventing nocebo effects. Some clinicians made explicit mention of “placebo” and “nocebo” effects without being prompted, showing awareness of the significance of these phenomena.

The doctors we interviewed mitigate these inherent constraints and tensions by fostering a strong doctor–patient relationship. Our study reveals an effort to establish rapport, empathy and hope with patients throughout the therapeutic process. In the absence of a satisfactory explanatory model—and wary of the danger posed by purely psychological explanations—they adopt empathic and hopeful stances to cultivate this relationship. Each of them has their own individual ways—or “habits” (Hardman et al. 2020)—to achieve this goal. For example, some doctors emphasized the importance of non-verbal behaviour, like smiling and active listening without interrupting, while others mentioned that they explicitly tell the patients they understand how they feel. This illustrates that there is not only one “proper” way but also that there might be individual approaches to successfully face the challenge of treating difficult chronic conditions that demand exceptional empathy and communication skills on the clinician’s part.

## Limitations

Our study presents several limitations. First, the physicians we interviewed are probably not representative of doctors in general, which limits the results’ generalisability: as gastroenterologists, they are specialized and very experienced in treating bowel disorders, and this sample of gastroenterologists had specific

expertise in treating functional gastrointestinal conditions such as IBS. Furthermore, all of them are associated with large academic medical centres, where they have been involved in multidisciplinary research and, therefore, they are probably more familiar with the literature regarding psychosocial aspects of medical care than doctors on average. For instance, they have clearly mastered many of the skills that are proven to make an effective doctor–patient relationship (Drossman et al. 2021), such as the ability to reconcile the explanatory model between patient and provider. It is likely that the outcome of our study would be different had we interviewed a cohort with more diverse levels of experience in treating patients with functional conditions and in dealing with TCAs. We hope that such a study will be carried out in the future. On the other hand, the level of expertise held by the physicians interviewed may simultaneously be seen as a strength of this study in the sense that these results provide an in-depth view into how physicians who have mastered the skills of doctor–patient communication approach clinical conversations regarding prescribing TCAs for functional disorders.

Likewise, the patient population seen by these physicians may also not be representative of all cultural, educational and social groups. Interviewing the patients who were treated by the clinicians would have yielded a clearer sense of the generalizability of the study and of the overall shared decision making involved.

It would have also been helpful to confirm whether stigma about receiving TCAs is something that is truly internalized, as the clinicians suggest it typically is. It was clear that our physicians emphasized TCAs as “neuromodulators” and de-emphasized any psychological dimension to the treatment. Additionally, in our previous three qualitative studies of placebo treatment in IBS, patients expressed fear of psychological stigma and often worried that “maybe I made up whole thing” (Kaptchuk et al. 2009; Bishop et al. 2012, Haas et al. 2022). Yet, there might be a sub-population of patients who find psychologization beneficial; they might recognize psychological suffering around functional disorders and view TCAs a way of validating emotional distress. The addition of a parallel group of interviewed patients would have clarified this issue.

Finally, in order to glean a more comprehensive picture of the shared decision making involved in the prescription of TCAs, it would be valuable to investigate the network of resources that patients avail themselves of before entering the clinic. Shared decision making is known to go beyond the doctor–patient dyadic form and encompass a range of encounters with both other people and technologies (Rapley 2008). In particular, the proliferation of digital health and social media has been shown to expand the information that the patient brings to the therapeutic encounter (Caiata-Zufferey et al. 2010). Bussey and Sillence (2019) suggest that increased access to medical information has brought about a shift from the traditional paternalistic healthcare model to one of enhanced shared decision making where the patient engages much more in the discussion of options and preferences. The privacy afforded by online environments encourages the search for sensitive topics that patients would be wary of broaching in the clinic. It is likely that web-based resources shape the perception of TCAs prescription and stigma from the patient’s viewpoint, and it would be worth examining whether and how physicians take this into account.

These limitations notwithstanding the purpose of this qualitative study were to promote awareness of this sensitive topic and to stimulate conscious discussion about the role of communication when prescribing antidepressants in functional disorders, rather than to investigate a representative sample of physicians. Due to their outstanding experience with this task and their exceptional awareness of the role of stigma, communication and expectations, the interviewed gastroenterologists might serve as paragon for other healthcare providers who face similar challenges. By increasing respective medical school trainings of how to deal with expectations and stigma, beneficial communication skills could even be developed systematically in future physicians.

## Conclusion

Low-dose tricyclic antidepressants are a common and effective treatment option for patients with IBS, but these medications are beset by the stigma frequently associated with functional disorders that symptoms may be “all in the head”. The gastroenterologists we interviewed expressed awareness of this issue and their explanations focused on physiological and pain-specific mechanisms of antidepressants. While they did not use psychological talk in the context of prescribing TCAs, however, the manner in which they prescribe TCAs to patients showed high sensitivity to the psychology of expectations. These physicians took great care to adjust patients’ goals and inspire hope while being realistic in a way that harnesses “placebo effects”. At the same time, they reframed otherwise discouraging information about side effects in order to improve medication adherence and prevent nocebo effects. Our cohort of physicians expressed deep concern for their patients and made efforts to navigate a complex world of hope, expectations in the context of empathy and the building of rapport.

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## Declarations

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**Ethical Approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed Consent** Informed consent was obtained from all individual participants included in the study.

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