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Uncertain Diagnostic Language Affects Further Studies, Endoscopies, and Repeat Consultations for Patients With Functional Gastrointestinal Disorders

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BACKGROUND & AIMS: **Although guidelines state that functional gastrointestinal disorders (FGIDs) can be diagnosed with minimal investigation, consultations and investigations still have high costs. We investigated whether these are due to specific behaviors of specialist clinicians by examining differences in clinician approaches to organic gastrointestinal diseases vs FGIDs.**

METHODS: **We performed a retrospective review of 207 outpatient department letters written from the gastroenterology unit at a tertiary hospital after patient consultations from 2008 through 2011. We collected data from diagnostic letters and case notes relating to patients with organic (n = 108) or functional GI disorders (n = 119). We analyzed the content of each letter by using content analysis and reviewed case files to determine which investigations were subsequently performed. Our primary outcome was the type of diagnostic language used and other aspects of the clinical approach.**

RESULTS: **We found gastroenterologists to use 2 distinct types of language, clear vs qualified, which was consistent with their level of certainty (or lack thereof), for example, "the patient is diagnosed with…." vs "it is possible that this patient might have….". Qualified diagnostic language was used in a significantly higher proportion of letters about patients with FGIDs (63%) than organic gastrointestinal diseases (13%) ($P < .001$). In addition, a higher proportion of patients with FGIDs underwent endoscopic evaluation than patients with organic gastrointestinal diseases (79% vs 63%; $P < .05$).**

CONCLUSIONS: **In an analysis of diagnoses of patients with FGIDs vs organic disorders, we found that gastroenterologists used more qualified (uncertain) language in diagnosing patients with FGIDs. This may contribute to patient discard of diagnoses and lead to additional, unwarranted endoscopic investigations.**

Keywords: Management; Endoscopy; Communication; IBS.

Functional gastrointestinal disorders (FGIDs) are highly prevalent, affecting 40% of the population in their lifetime[1] and accounting for 25%–50% of gastroenterology referrals.[2] They are associated with reduced quality of life and significant costs.[3] Despite the high prevalence of FGIDs and the clear impact of these disorders on patients and the community, they are poorly handled in the healthcare system.[4]

Historically, FGIDs were regarded as diagnoses of exclusion, leading to a high investigative burden. However, it is now well-documented that a safe, positive diagnosis can be made on the basis of symptoms along with exclusion of relevant differential diagnoses with minimal investigations.[5,6] Yet, primary healthcare providers appear to persist with a "diagnosis-of-exclusion" approach to these disorders as judged by the large and increasing number of referrals of patients with suspected FGIDs for invasive procedures. Even within specialty care, an overuse of investigations is widely acknowledged to occur, which is driven by repeat consultation.[7]

Understanding the factors that promote repeat consultation is important to effective management of FGIDs. Suggested factors include patients' fear of a missed organic diagnosis,[8] concurrent psychopathology,[9] patients' beliefs about symptoms, faulty cognitions such

Abbreviations used in this paper: FGID, functional gastrointestinal disorder; OGID, organic gastrointestinal disease; SD, standard deviation.

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as catastrophizing and excessive monitoring,[10] persistence of symptoms,[4] and patients' uncertainty and/or lack of acceptance of diagnosis.[4,11]

Despite the potential impact of patient acceptance of diagnosis on successful FGID management, only 2 small studies have been conducted in South Korea and Australia.[11,12] These indicate a positive FGID diagnosis is unacceptable to most of the population,[12] with only 1 of 13 patients accepting the diagnosis.[11] Collins et al[11] concluded that lack of acceptance was not due to communication failure because the diagnosis was clearly documented in the medical records. However, it is possible that these diagnoses were not clearly conveyed to patients, and this influenced patient acceptance of the diagnosis. The term *discarded diagnosis* was coined by Collins et al to describe a patient not acknowledging and/or accepting the diagnosis.

Anecdotally, discarded diagnoses, repeat consultations, and the overuse of investigations do not appear to occur in organic gastrointestinal disease (OGID). We postulated that differences in patient acceptance of diagnosis between FGID and OGID might stem from differences in the language used by the specialist during consultation. We sought to examine specialist communication by using the proxy of their letters dictated after patient consultations. The aims of this study were to explore and describe any differences in clinician approach to OGID versus FGID by reviewing medical communication and use of investigations in these 2 patient cohorts and whether these related to future healthcare-seeking behavior.

Methods

Study Design

A retrospective review of outpatient department letters written in a tertiary hospital's luminal Gastroenterology Unit was undertaken in 2014–2015. Letters written after a patient consultation between 2008 and 2011 were included if written by a gastroenterology consultant, gastroenterology trainee, or senior gastroenterology trainee (5–7 years, ≥7 years after medical school) who had worked in the outpatient department for at least 12 months prior. Trainees were supervised by post clinic debrief, without formal review of dictated letters. Consecutive letters were reviewed by a senior gastroenterologist (J.M.A.) and sorted into diagnostic categories of FGID or OGID according to the primary diagnosis stated in the letter.

Letter selection continued until approximately 100 were obtained in each group (n = 213). Incomplete letters, referral letters, and non-patient contact letters were excluded (n = 6), leaving 207 letters for content analysis. FGID letters were explored further for factors related to the language used. Specific clinical investigations documented in FGID letters were also noted. Medical records were obtained for patients who had undergone a gastroscopy or colonoscopy (as noted in the letter) and assessed for appropriateness by using alarm-based criteria. Investigations were considered appropriate where clinical alarms (Table 1) or relevant abnormal test results were noted.[13]

Table 1. Content Analysis Coding Categories and Clinical Alarms Used to Assess Appropriateness of Endoscopic Investigations

Coding category	Medical comorbidities noted
	Psychological comorbidities noted
	Diagnosis explained to the patient
	Investigative strategy used
	Rationale given for the investigations conducted
	Management clearly stated
	Management discussed with the patients
	Prognosis given
	Follow-up plan noted
	Mental health deemed relevant to the diagnosis by clinician
	Type of diagnostic language used
Clinical alarm	New onset of symptoms (within 6 months and older than 50 years)
	Unexplained weight loss (>3 kg or 5% body weight)
	Overt gastrointestinal bleeding (positive fecal occult blood test, melena, hematemesis)
	Unexplained fever
	Abdominal pain awaking patient from sleep
	Nocturnal diarrhea
	Family history of colon cancer (1 first-degree relative diagnosed when <60 years of age; >1 first-degree relatives diagnosed at any age)
	Family history of inflammatory bowel disease (1 or more first-degree relatives)
	Family history of celiac disease (1 or more first-degree relatives)

Content Analysis

Letters were subjected to content analysis following the steps outlined by Neuendorf.[14] Five letters from each group were categorized according to repetitive content by 2 independent coders (E.L., A.C.H.). The final categories (n = 11) and rules were jointly decided by the coders and a senior gastroenterologist (J.M.A.) by means of consensus. The remaining letters were coded by the principal researcher (E.L.), and frequencies were counted. After the first 40 letters, the codes were verified back to the raw data on a random sample of 10 by a second researcher (A.C.H.), and the codebook was reviewed and adjusted. This was repeated at completion on a 20% random sample, with inter-rater agreement of 100%.

Outcomes

Primary outcomes were the type of diagnostic language used. Secondary outcomes were the healthcare-seeking behavior of the patients as determined by the