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Use of dietary management in irritable bowel syndrome by dietitians in Poland

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A – Study Design, **B** – Data Collection, **C** – Statistical Analysis, **D** – Data Interpretation, **E** – Manuscript Preparation, **F** – Literature Search, **G** – Funds Collection

Summary **Background.** In the populations of developed countries, the prevalence of irritable bowel syndrome (IBS) has been reported to be ~ 4.6%. Dietary therapy is a mainstay of treatment for gastrointestinal (GI) symptoms in patients with IBS.
Objectives. The aim of the study was to gauge the perceptions of Polish dietitians towards dietary therapies for IBS.
Material and methods. A 32-question survey was distributed to dietitians actively consulting IBS patients. Data allowing to identify any specific practice patterns or knowledge gaps, which should be addressed to increase the quality of patient care, was collected. Survey responses were summarised using simple proportions.
Results. 262 survey responses were included to the study results (53.6% of total responses). IBS patients most commonly use a trial-and-error approach and rarely use a low fermentable oligosaccharides, disaccharides, monosaccharides and polyols (FODMAP) diet on their own. As many as 74% of dietitians did not cooperate with gastroenterologist, and 71.8% did not cooperate with psychotherapists or psychologists to offer multidisciplinary or integrated care for IBS patients. Only 48% of dietitians were usually able to go through all 3 phases of the low FODMAP diet with their IBS patients.
Conclusions. Some gaps in practice patterns of dietitians in Poland, especially lack of cooperation with other specialists treating IBS patients, were identified, and less than half dietitians were usually able to follow all 3 phases of the low FODMAP diet with IBS patients, which indicates the need to introduce additional training for working dietitians.
Key words: diet therapy, irritable bowel syndrome, nutritionists, Poland.

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Background

Functional bowel disorders (FBDs) are a spectrum of disorders characterised by symptoms attributable to the lower GI tract [1]. Irritable bowel syndrome (IBS) is the FBD that has been most extensively evaluated and is also, depending on the diagnostic definition used, one of the most prevalent. In the populations of developed countries, the prevalence of IBS has been reported to be ~ 4.6% [2].

IBS affects quality of life and work productivity so negatively that patients are willing to accept significant risks in return for a cure to their IBS complaints [3]. The mainstays of treatment include patient education about the condition, dietary changes, antispasmodic drugs [4] and brain-gut behaviour therapies (BGBT) [5].

Recognition that fermentable oligosaccharides, disaccharides, monosaccharides and polyols (FODMAPs), which are present in stone fruits, legumes, lactose-containing foods and artificial sweeteners, exacerbate symptoms in some patients because of their fermentation and osmotic effects has led to the use of a low FODMAP diet as a one of the therapeutic manoeuvres [6]. A low FODMAP diet is currently the most commonly recommended treatments by healthcare providers [7], as well as being the most evidence-based for IBS patients [8].

Furthermore, the heterogeneity of IBS, even within individual subtypes, makes it difficult to design an algorithm to fit all patients, but recent evidence suggests that collaborative, team-based integrated care (e.g. gastroenterologist, psychologist, dietitian) leads to better clinical outcomes and reduced cost per cure compared to traditional care [9].

Objectives

The purpose of this study was to describe how dietitians currently approach the use of dietary therapy in the management of IBS patients. We have determined whether or not a dietitian's approach is in line with dietary recommendations. Our study also aimed to identify any specific practice patterns or knowledge gaps which should be addressed to increase the quality of patient care. In addition, we have resolved whether participation in additional trainings together with some demographic factors, such as years of experience, type of practice setting or membership in dietitians' associations, affected overall views and recommendations regarding dietary and other non-pharmacological therapies.

Material and methods

Survey design and study population

A 32-questions survey, modified from other survey studies [7, 10] and further developed by dietitians experienced in the treatment of IBS in the Polish settings, was electronically dis-

tributed through Facebook groups dedicated to dietitians. The responses were collected between 1 March 31 March 2022. As an incentive to complete the survey, we offered all participants free access to the on-line course on IBS diet therapy (after completing the survey). 489 survey responses were collected. We excluded a total of 227 respondents from the final analysis (140 dietitians did not work actively with IBS patients, 14 had no dietary education, and 73 incorrectly filled in the questionnaire, e.g. double answers in single-answer questions); thus, 262 survey responses were included in the study results. Survey responses were summarised using simple proportions.

Results

Participant demographics

The majority of respondents were women (91.6% women vs 8.4% men) and were not a member of any Polish dietitian association (88.2%). The dietitians who participated in this survey were most likely to practice in a community-based setting (66.8% as self-employed and 17.6% as employed) and had a master's degree (28.6% bachelor's degree, 59.2% master's degree, 7.3% doctoral degree and 5% postgraduate studies in the field of dietetics). As many as 93.5% of dietitians indicated that they are treating approximately 0–10 patients per week.

Patient approach to the self-management of irritable bowel syndrome

Over 40% of surveyed dietitians reported that their patients "usually" (31.7%) or "almost always" (12.6%) attempt to self-manage their IBS symptoms prior to seeking advice from a nutrition specialist. At the same time, 64.5% of the survey participants indicated that less than 10% of their patients ask about the low FODMAP diet during the first visit. We also asked dietitians to report how often their patients had tried different diet interventions prior to seeing them for the first time. From highest to lowest, the proportion of providers who indicated that their patients had "usually" or "almost always" tried each diet were: trial and error (50%), lactose-free (33%), gluten-free (24%), low fat (6%), low FODMAP and low FODMAP ("gentle" approach) (2%) (Table 1).

Dietitian's approach to manage of irritable bowel syndrome

Our survey population mostly (55%) "agreed" or "strongly agreed" with the statement that they have adequate knowledge of or sufficient training in the low FODMAP diet to manage IBS patients, but on the other hand, the minority "agreed" or "strongly agreed" that they are able to manage IBS patients on a vegetarian (42%) or on vegan (21%) diet.

The vast majority of respondents indicated that their main sources of information on the low FODMAP diet are scientific publications (80.9%), together with webinars and others online forms of training (76.7%,) and less than half of them (45%) had completed a course on diet therapy in IBS in the last 5 years. Furthermore, over three-quarters of respondents (79.4%) "disagreed" or "strongly disagreed" with the statement that "during dietary studies was properly prepared to work with IBS patients".

Dietitians in general (72.2%) believed that more than 50% of IBS patients could benefit from the low FODMAP diet, and for most of the specialists, this diet was "usually" (41.2%) or "almost always" (24.8%) the first line of nutritional therapy. Over half of the respondents (52%) indicated that they are "rarely" (15.3%) or "sometimes" (36.7%) able to go through all 3 phases of the low FODMAP diet (low FODMAP reduction, reintroduction of FODMAP and personalisation phase) with IBS patients. Most of surveyed dietitians also reported that the low FODMAP diet is too restrictive, unsafe for long-term use or difficult to follow without a dietitian's guidance (32.8% "strongly agree" and 43.9% "agree" with this statement). Additional information on the treatment of IBS patients is provided in Table 2.

Dietitians were also questioned about the effectiveness of the low FODMAP diet relative to other available pharmacological and non-pharmacological treatment options for IBS. As many as 97.7% of the survey respondents indicated that the low FODMAP diet was "equally effective" (27.1%), "more effective" (58.4%) or "significantly more effective" (12.2%). When asked whether gut-directed hypnotherapy is an effective treatment of IBS, 69.8% "neither agree nor disagree" with this statement, but in the case of cognitive behavioural therapy, 52.7% "agree" and 11.1% "strongly agree" that this is an effective way of treating patients. More than three-quarters of respondents also "agreed" (61.1%) or "strongly agreed" (20.2%) that probiotics are effective in managing IBS symptoms. Interestingly, a major-

Table 1. How often did your patients try the following diets before you treated them?

	Almost never	Rarely	Sometimes	Usually	Almost always
Trial and error	15 (5.7%)	25 (9.5%)	51 (19.5%)	109 (41.6%)	62 (23.7%)
Lactose-free	10 (3.8%)	19 (7.3%)	97 (37%)	93 (35.5%)	43 (16.4%)
Gluten-free	18 (6.9%)	35 (13.4%)	98 (37.4%)	78 (29.8%)	33 (12.6%)
Low-fat diet	100 (38.2%)	85 (32.4%)	50 (19.1%)	20 (7.6%)	7 (2.7%)
Low FODMAP	82 (31.3%)	83 (31.7%)	68 (26%)	26 (9.9%)	3 (1.1%)
Low FODMAP ("gentle" approach)	114 (43.5%)	52 (19.8%)	55 (21%)	36 (13.7%)	5 (1.9%)

Table 2. How often do you recommend the following diets or nutritional interventions to IBS patients?

	Almost never	Rarely	Sometimes	Usually	Almost always
Lactose-free	24 (9.2%)	56 (21.4%)	96 (36.6%)	54 (20.6%)	32 (12.2%)
Gluten-free	86 (32.8%)	78 (29.8%)	66 (25.2%)	22 (8.4%)	10 (3.8%)
Low fat diet	101 (38.5%)	79 (30.2%)	62 (23.7%)	14 (5.3%)	6 (2.3%)
Low FODMAP	6 (2.3%)	23 (8.8%)	81 (30.9%)	101 (38.5%)	51 (19.5%)
Low FODMAP ("gentle" approach)	8 (3.1%)	14 (5.3%)	73 (27.9%)	108 (41.2%)	59 (22.5%)
Caffeine reduction	25 (9.5%)	55 (21%)	106 (40.5%)	61 (23.3%)	15 (5.7%)
Hot spice reduction	10 (3.8%)	30 (11.5%)	87 (33.2%)	89 (34%)	46 (17.6%)
Lower volume of meals	8 (3.1%)	26 (9.9%)	74 (28.2%)	99 (37.8%)	55 (21%)
Low histamine diet	81 (30.9%)	83 (31.7%)	80 (30.5%)	13 (5%)	5 (1.9%)

Table 3. How often do you think the following factors are a barrier to the implementation of and compliance to the FODMAP protocol by patients with IBS?

	Almost never	Rarely	Sometimes	Usually	Almost always
Lack of insurance coverage for dietitian visits	21 (8%)	41 (15.6%)	91 (34.7%)	81 (30.9%)	28 (10.7%)
Lack of cooperation between gastroenterologists and dietitians	4 (1.5%)	18 (6.9%)	75 (28.6%)	109 (41.6%)	56 (21.4%)
Lack of apps about the FODMAP content in food in Polish language	17 (6.5%)	41 (15.6%)	76 (29%)	85 (32.4%)	43 (16.4%)
Complexity of diet	11 (4.2%)	32 (12.2%)	69 (26.3%)	98 (37.4%)	52 (19.8%)
Patient's lack of awareness about the dietary treatment of the IBS	5 (1.9%)	18 (6.9%)	52 (19.8%)	123 (46.9%)	64 (24.4%)
The ineffectiveness of the FODMAP diet	84 (32.1%)	111 (42.4%)	59 (22.5%)	7 (2.7%)	1 (0.4%)
Lack of access to dietitians qualified to run the FODMAP diet	11 (4.2%)	42 (16%)	93 (35.5%)	89 (34%)	27 (10.3%)

ity of the respondents stated that they do not cooperate with psychotherapists or psychologists (71.8%), as well as gastroenterologists (74%).

We also asked dietitians to report how often different factors are a barrier to the implementation of and compliance to the FODMAP protocol by patients with IBS. As many as 71.3% of the respondents pointed to a patient's lack of awareness about the dietary treatment of IBS as the main barrier factor (46.9% "usually" and 24.4% "almost always"). The second most reported reason was the lack of cooperation between a gastroenterologist and dietitians (63%). Other detailed information is presented in Table 3.

Discussion

The majority of IBS patients believe that certain food items are important triggers of their GI symptoms [11]. Similarly, our study found that in the opinion of the survey participants, patients mostly modify their diet prior to visiting the dietitian, but less than 10% of them ask about the low FODMAP diet, and most often they took a "trial and error" approach to their diet, followed by pursuing a lactose-reduced diet. Our findings are consistent with the results of a survey of gastroenterologists from the United States [7].

Surprisingly, dietitians viewed the low FODMAP diet much more favourably compared to other available treatments for IBS patients, and they were also not sure regarding the effectiveness of gut-directed hypnotherapy (GDH). The studies showed [12, 13] that therapies like yoga and GDH are as equally effective as the low FODMAP diet and led to statistically significant improvement in IBS symptoms compared to baseline.

Almost three quarters of dietitians also confirmed that they do not cooperate with other specialists treating IBS patients (gastroenterologist, psychotherapists or psychologists), and 63% of the respondents pointed out that the lack of cooperation between gastroenterologists and dietitians is one of the main barrier factors for implementation of and compliance to the FODMAP protocol by patients with IBS. This seems particularly interesting in the context of a survey that found that over 70% of gastroenterologists believed having direct access to registered dietitians with an IBS focus would enhance the delivery of dietary therapy [7]. It is also worth noting that some studies suggest that a team-based, collaborative care model offers measurable benefits over simply having access to a dietitian or behavioural therapist [14, 15].

Although most of the survey participants pointed out that the low FODMAP diet is the first line of their nutritional therapy, some guidelines suggest less restrictive dietary modification (e.g. before implementing the low FODMAP diet) [16]. Moreover, most of dietitians agree with the statement that probiotics are an effective treatment of IBS, but recent societal guidelines have recommended either against the use of probiotics to treat global IBS symptoms or limiting their use in IBS to ongoing clinical trials [17, 18], as well as suggesting a limited therapeutic trial (e.g. from 4 to 12 weeks) in clinical practice [16, 19].

The results of our study indicate that over half of the dietitians were able to go through all 3 phases of the low FODMAP diet with their IBS patients. It should be noted that without guidance from a dietitian, patients are twice as likely to be non-responders to the low FODMAP diet (< 25% symptom improvement), and the patients' ability to follow the all 3 phases of the diet is diminished, highlighting the role of the dietitian [20].

Plant-based diets are rapidly becoming one of the trendiest ways to eat because of their multiple proposed health benefits, but a number of factors should be considered when implementing these dietary patterns in patients with FBDs (e.g. substantial quantities of fermentable carbohydrates are found across a wide range of plant foods) [21]. Interestingly, the comfort level of surveyed dietitians in delivering dietary counselling to IBS patients who are on a vegan or vegetarian diet was low, with around just 20% of specialists reporting being well prepared for managing a low FODMAP plant-based diet.

Conclusions

Our survey identified some gaps in the practice patterns of dietitians in Poland, especially lack of cooperation with other specialists treating IBS patients. Only 52% of the dietitians were usually or sometimes able to go through all 3 phases of the low FODMAP diet with their IBS patients, which indicates the need to introduce additional training for working dietitians.

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