

Characterising Irritable Bowel Syndrome: An Exploratory Cross-Sectional Study

Heather Galea¹, Mario Caruana Grech Perry, Petra Jones

Department of Food Science, Nutrition and Dietetics, University of Malta, Msida, Malta

Email: heather.galea.18@um.edu.mt

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Abstract

Background: Irritable Bowel Syndrome (IBS) is a prevalent functional gastrointestinal disorder influenced by cultural, dietary and psychosocial factors. Locally relevant tools are needed to better understand the experiences and management behaviours of Maltese individuals living with IBS. **Objective:** To develop and content-validate a culturally relevant questionnaire and characterise a sample of Maltese patients living with Irritable Bowel Syndrome (IBS). **Methodology:** A cross-sectional quantitative design was used. Consenting Maltese adults meeting the Rome IV criteria for IBS were recruited via social media and outpatient gastroenterology and dietetic clinics across Malta. A 30-item culturally adapted questionnaire was systematically developed, content-validated and administered. Collected variables included demographics, lifestyle behaviours, psychological comorbidities, symptom severity, diagnosis status, information sources, dietary triggers and treatments used. Descriptive statistics summarised cohort characteristics, while inferential analyses examined associations between symptom severity and demographic or clinical variables ($p < 0.05$), with effect sizes calculated. **Results:** The sample ($N = 130$) was predominantly female (90.8%), most commonly aged 36 - 45 years, with a mean BMI of $27.5 \pm 6.8 \text{ kg/m}^2$. Participants reported moderate symptom severity and high rates of psychological comorbidities. Food was the most frequently reported trigger (78.5%), particularly dairy (45%) and vegetables, fruit, beans and legumes (39%). Pharmacological treatments were widely used (85.4%) and online sources were the predominant information channel (80.8%). No significant associations were identified between symptom severity and demographic or clinical factors. **Conclusion:** This study describes a symptom-aware Maltese cohort actively engaging in IBS self-management. The prominence of food-related triggers, moderate symptom severity and psychological comorbidities underscores the need for multidisciplinary, personalised, evidence-based care, including dietetic and psychological support. The validated questionnaire offers a culturally grounded tool for future research and clinical as-

assessment in Malta.

Keywords

Irritable Bowel Syndrome, Functional Gastrointestinal Disease, Symptom Severity, Malta, Mediterranean

1. Introduction

Irritable Bowel Syndrome (IBS) is a chronic functional gastrointestinal disorder characterised by recurrent abdominal pain and altered bowel habits, including diarrhoea, constipation or a combination of both. Globally, IBS affects approximately 14.1% of the population [1] and significantly impairs quality of life through psychological distress, reduced productivity and increased healthcare utilisation [2]. The most recent diagnostic framework, the Rome IV criteria, classifies IBS into four subtypes based on predominant bowel habits: IBS with diarrhoea, IBS with constipation, IBS with mixed bowel habits and IBS unclassified [3]. Despite ongoing research, the aetiology and pathophysiology of IBS remain ill-defined due to its multifactorial nature, involving the gut-brain axis, visceral hypersensitivity, altered motility and gut microbiota [4]-[6]. Management is generally tailored to predominant symptomatology and may encompass pharmacological, psychological and dietary interventions [3].

IBS has been extensively studied in Western, Asian and Northern European populations. However, data from Mediterranean regions remain limited [7]. While prevalence data for IBS in the Maltese population are currently unavailable, increased public awareness and population growth have and will likely contribute to a rise in diagnoses, with implications for healthcare demand and quality of life [8]. The sole local prevalence estimate, reported among junior doctors and medical students (17.7%) [9], is not representative of the wider adult population, and no epidemiological data are available to characterise IBS in the Maltese community. Existing Maltese studies have focused on psychological and pharmacological aspects or qualitatively explored patient experiences, but none have characterised the demographic, clinical or dietary profiles of adults with IBS. This gap limits the capacity of healthcare professionals, particularly dietitians, to deliver culturally relevant, evidence-based interventions.

To address the limited local data on IBS in Malta, the present study developed, content-validated and administered a context-specific questionnaire tailored to the Maltese population. The tool was designed to capture detailed demographic, clinical and IBS-related characteristics, thereby contributing to a more patient-centered understanding of IBS and supporting future research and clinical practice. Unlike existing validated instruments assessing knowledge, attitudes, practices or quality of life [10]-[14], this questionnaire was specifically aligned with the need to reflect culturally specific dietary patterns, symptom triggers, and life-

style factors relevant to the Maltese context.

2. Methodology

2.1. Development of the Data Collection Tool

The tailored questionnaire incorporated culturally appropriate dietary references, language-specific phrasing and flexible response formats to enhance content validity and ensure accurate reflection of the characteristics and dietary behaviours of IBS sufferers in Malta. Building on these design considerations, the tool was structured into three domains: demography, symptomatology and characteristics. The demographic domain included nine items, covering anthropometric measures, smoking, drinking behaviours and psychological aspects.

The second domain adopted the validated Irritable Bowel Syndrome-Severity Scoring System (IBS-SSS), with permission from the Rome Foundation, to analyse symptoms [15]. The first part of the original tool was included in this questionnaire as a series of seven multiple-choice questions where respondents were required to rate the level of the indicated symptom experienced in the previous 10 days.

The third domain was designed to gather additional characteristics across a total of ten items, comprising yes/no questions, open-ended responses and multiple-choice formats. Item generation was guided by a review of current literature on IBS symptomatology, diagnostic pathways and treatment interventions, and further refined through consultation with a local multidisciplinary team of dietitians, nutritionists, statisticians and gastroenterologists with expertise in health research. This process ensured clinical relevance, methodological rigor and contextual appropriateness for the Maltese population. The resulting domain captured key constructs including diagnosis status, sources of information, food triggers and trialled treatment interventions. The Rome IV symptom-based diagnostic criteria [3], included with permission from the Rome Foundation, were selected to ensure inclusion of participants who met validated clinical thresholds despite lacking a formal diagnosis. This also allowed verification of self-reported physician-diagnosed IBS cases.

This yielded a questionnaire developed over three domains with a total of 26 items. Efforts focused on designing a questionnaire that was concise yet comprehensive, minimising respondent burden while ensuring sufficient data to address the main research questions [16]. Ethical approval for this study was granted by the Faculty of Research Ethics Committee and the University Research Ethics Committee (UREC FORM FHS-2024-00126).

2.2. Translation, Content and Face Validation

To accommodate potential language barriers, the questionnaire was produced in both English and Maltese using a forward-back translation process to ensure linguistic and conceptual equivalence [17]. Content validity was assessed for both the English and Maltese versions of the questionnaire, the latter incorporating the

translated and licensed IBS-SSS and Rome IV criteria. A structured validation form was completed by a purposive sample of 10 experts (7 registered dietitians, 2 statisticians, and 1 gastroenterologist), who evaluated the tools through a unified process to ensure consistency across versions. Relevance was rated on a 4-point scale and ratings were dichotomised for calculation of the item-level and scale-level Content Validity Index (CVI), following established procedures [18] [19]. Although the modified kappa statistic (k^*) was not computed, the expert panel size met the threshold where CVI and k^* values are known to converge, reducing the likelihood of chance agreement.

Face validation was conducted following content validation to assess the clarity, relevance and acceptability of the questionnaire [20]. Experts provided written feedback at the end of each domain, focusing on language, item relevance and overall presentation. Validation occurred over one round where experts judged both the content and face validity of a total of 19 items across the first and third domains since the second section contained a validated scale [15].

To obtain respondent opinion, a purposive sample of the target population was invited via email to participate in face validation. A total of 6 respondents were identified based on eligibility criteria for the study and selected for convenience, as they were willing and available to contribute. Their qualitative feedback, informed by personal experience with IBS, was collected through open-ended questions addressing language clarity, ease of understanding and the relevance of the information provided.

2.3. Data Collection

Eligible participants were Maltese adults aged 18 to 65 years with IBS, either formally diagnosed by a physician or meeting the Rome IV diagnostic criteria. Individuals receiving dietetic treatment, as well as those not currently undergoing any treatment, were included. All participants were required to provide informed consent prior to participation.

Data collection was conducted through a dual recruitment strategy combining outpatient clinical settings and online outreach. Gastroenterologists and dietitians acted as intermediaries by inviting eligible patients attending their clinics to participate via the anonymous online questionnaire, while online platforms, including social media channels, similarly served as intermediaries to extend invitations to a wider audience.

2.4. Data Analysis

The dataset was cleaned to exclude responses from non-Maltese participants and those not meeting the Rome IV diagnostic criteria. Body Mass Index (BMI) was calculated using self-reported weight and height values. Symptom severity data from the second domain, based on the IBS-SSS, were analysed according to the scoring protocol outlined [15]. Open-ended responses regarding perceived food triggers were categorised into eight food groups to facilitate analysis: carbohydrates;

vegetables, fruit, beans and legumes; dairy; fats and oils; proteins; processed foods; miscellaneous; others or non-dietary triggers. All resultant data were then analysed using the Statistical Package for the Social Sciences Version 29.

Descriptive statistics were used to summarise sample characteristics. Inferential analyses (independent t-tests, one-way ANOVA, Mann-Whitney U tests, and Spearman's rank-order correlation) were conducted to examine associations between IBS symptom severity and demographic and clinical variables. Effect sizes (Cohen's *d*, eta-squared, and rank biserial correlation) were calculated to complement significance testing.

3. Results

3.1. Results for Content Validation

All items demonstrated excellent content validity, with I CVI values of 0.9 - 1 and an S CVI average of 0.98, exceeding established thresholds^{18,19}. The universal agreement S CVI was 0.789, narrowly below the 0.80 benchmark but considered acceptable given the high average and the involvement of 10 experts.

3.2. Results for Face Validation

Expert feedback resulted in the addition of three items on living situation, household meal preparation and trigger foods, and one response option was refined for clarity. Respondents confirmed the questionnaire's accessibility and logical structure. After validation and pilot testing, the final instrument comprised 30 items across three domains: demography (12), symptomatology (7) and characteristics (11).

3.3. Findings from Questionnaire Application

A total of 266 questionnaire responses were received, with no incomplete questionnaires. Following exclusion of non-Maltese respondents (*n* = 14) and those not meeting Rome IV criteria (*n* = 122), 130 valid responses were retained for analysis reducing the margin of error to 4.3%.

Demographic, lifestyle and anthropometric data from the study sample (*N* = 130) are summarised in **Table 1**. The sample was predominantly female (90.8%) and aged 36 - 45 years (60%). Educational attainment was high, with nearly half holding an undergraduate degree (47%) and a comparable proportion a postgraduate qualification (48%). Most participants were married (55%) and living with their partner and children (40%). Lifestyle indicators suggested a relatively healthy cohort: the majority prepared their own meals (52%), had never smoked (69%) and reported low alcohol consumption, typically once per month (49%). Despite these favourable health behaviours, perceived psychological comorbidities were common, with anxiety (68%) and stress (66%) most frequently reported, while 18% indicated no psychological health concerns. The mean BMI of participants was 27.5 ± 6.8 kg/m² (*n* = 129), indicating that most were classified as overweight.

Table 1. Demographic, lifestyle and anthropometric characteristics of the study sample (N = 130). Data are presented as frequency (percentage) for categorical variables and mean \pm SD and mean (95% CI) for continuous variables. (a) Demographic and lifestyle characteristics; (b) Anthropometric characteristics.

(a)			
Characteristic	Categories	n	Frequency (%)
Gender	Female	118	90.8
	Male	12	9
Age (in years)	18 - 25	19	15
	26 - 35	33	25
	36 - 45	78	60
	46+	0	0
Highest education level	Secondary school	10	8
	Post-secondary	25	19
	University diploma or degree	47	36
	Postgraduate	48	40
Social status	Single	43	33
	Married	72	55
	Divorced/Separated/Other	15	12
Living situation	Alone	8	6
	With a partner or spouse and no children	34	26
	With a partner or spouse and children	52	40
	With my parents	26	20
	With my children/roommates/extended family	10	8
Who prepares the food in the household	I prepare my own food	67	52
	Others prepare my food	8	6
	Both of the above	55	42
Smoking status	Current smoker	18	14
	Former smoker	23	18
	Never smoked	89	69
Alcohol consumption	Never	19	15
	Once a month	49	38
	2 - 4 times a month	40	31
	2 - 3 times a week	16	12
	4 or more times a week	6	5
Perceived psychological comorbidity¹	Stress	84	65
	Anxiety	88	68
	Depression	21	16
	None	23	18

Continued

		(b)			
Characteristic	Categories	n	Mean \pm S. D.	Mean (95% CI)	Variance
Anthropometrics	Weight (kg)	129	72.3 \pm 18.8	72.3 (69.0 - 75.6)	352.0
	Height (m)	130	1.6 \pm 0.1	1.6 (1.60 - 1.63)	0.01
	BMI (kg/m ²)	129	27.5 \pm 6.8	27.5 (26.3 - 28.7)	46.2

(a) 1 = Participants could select more than one-response; (b) S. D. = Standard Deviation, CI = Confidence Interval.

Table 2 summarises outcomes from the symptomology and characteristics domains of the questionnaire. Participants reported a mean IBS SSS score of 258.1 \pm 95.1, with moderate symptom severity being the most common classification (39%). The three participants classified as being in remission, according to the IBS-SSS, remained eligible, as all met Rome IV diagnostic criteria for IBS and no minimum symptom severity threshold was required for eligibility. The remission category reflects low current symptom burden within individuals who still have IBS and is consistent with the fluctuating symptom patterns characteristic of the condition. Most respondents (72%) had received a physician diagnosis of IBS, typically at a mean age of 30.9 \pm 12.6 years, with an average disease duration of 7.9 \pm 7.6 years. Food intake was widely perceived as a symptom trigger (78.5%), with dairy products, plant-based foods (vegetables, fruits, beans, legumes) and carbohydrates most frequently implicated. Information sources were largely digital, with 80.8% relying on the internet or social media, while one third consulted general practitioners. In terms of management, pharmacological treatments were most trialled (85.4%), followed closely by dietary modifications (79.2%). Of the total sample (N = 130), disease duration was reported by 92 participants (7.9 \pm 7.6 years), while age at diagnosis was available for 93 participants (31.1 \pm 12.4 years). These findings contribute to the overall profile of the cohort, despite partial item response.

Table 2. Further characteristics of the study sample (N = 130). Data are presented as frequency (percentage) for categorical variables and mean \pm SD and mean (95% CI, variance) for continuous variables. (a) IBS symptoms and diagnostic characteristics; (b) Symptom triggers and management; (c) Clinical characteristics.

(a)			
Characteristic	Category	n	Frequency (%)
IBS-SSS category	Mild	31	24
	Moderate	51	39
	Severe	45	35
	Remission	3	2
Diagnosis by a physician	Yes	93	72
	No	37	29

Continued

(b)				
Characteristic	Category	n	Frequency (%)	
Is food perceived as a symptom trigger?	Yes	102	78.5	
	No	28	22	
Food categories perceived to trigger symptoms ¹	Carbohydrates	49	38	
	Vegetables, Fruit, Beans and Legumes	50	39	
	Dairy	58	45	
	Fats and oils	18	14	
	Proteins	3	2	
	Processed food	3	2	
	Miscellaneous	30	23	
	Other or Non-dietary triggers	35	27	
Informative sources mostly sought ¹	General practitioner or family doctor	44	34	
	Gastroenterologist	31	24	
	Nutritionist or dietitian	20	15	
	Internet and social media	105	80.8	
	Relatives and friends	21	16	
	Never sought any information	1	1	
	Others	5	4	
Trialled treatment options ¹	Dietary	103	79.2	
	Pharmacological	111	85.4	
	Psychological	35	27	
	Lifestyle	57	44	
	Never tried any treatment	5	4	
(c)				
Characteristic	n	Mean ± S. D.	Mean (95% CI)	Variance
IBS-SSS score	130	258.1 ± 95.1	258.1 (239.1 - 277.9)	8777.2
Disease duration	92	7.9 ± 7.6	7.96 (6.4 - 9.5)	57.1
Age on diagnosis	93	31.1 ± 12.4	31.1 (28.6 - 33.7)	154.1

(a) n = number of participants, IBS-SSS = Irritable Bowel Syndrome-Severity Scoring System; (b) n = number of participants, 1 = Participants could select more than one-response; (c) n = number of participants, S. D. = Standard Deviation, CI = Confidence Interval, IBS-SSS = Irritable Bowel Syndrome-Severity Scoring System.

Table 3 reports findings of associations between IBS-SSS scores and demographic and clinical factors. A sample size calculation was performed a priori to ensure adequate precision for estimating population characteristics, as mentioned

in section 3.3. However, no separate power calculations were conducted for each inferential test presented in **Table 3**. As this was an exploratory study, effect sizes were reported to aid interpretation and findings should be considered within the context of potential limitations in statistical power for subgroup comparisons. Mean IBS-SSS scores were slightly higher among females (251.40 ± 96.30) compared to males (215.83 ± 77.98). Although the two-sided p-value ($p = 0.218$) was not statistically significant and the effect size was small ($d = 0.2$), these findings should be interpreted with caution due to the very small number of male participants ($n = 12$), which limits statistical power and reliability. No evidence of a significant association was found between IBS-SSS scores and age group ($p = 0.417$, $\eta^2 = 0.01$) whilst evidence of borderline significance was seen across diagnosis status ($p = 0.052$), although the effect size was small ($r = 0.2$).

Table 3. Associations between IBS-SSS scores and demographic and clinical factors.

Variable	Group/Status	n	Mean IBS-SSS	SD	Test type	p-value	Effect size
Gender	Female	118	251.40	96.30	<i>t</i> -test	0.218	$d = 0.2$
	Male	12	215.83	77.98			
Age	18 - 25 years	19	256.32	90.87	ANOVA	0.417	$\eta^2 = 0.014$
	26 - 35 years	33	264.24	86.10			
	36 - 45 years	78	239.29	99.60			
Diagnosis status	Yes	93	259.09	93.33	Mann-Whitney U	0.052	$r = 0.170$
	No	37	220.54	95.01			
Stress	Present	84	256.67	93.21	<i>t</i> -test	0.167	$d = -0.255$
	Absent	46	232.50	97.44			
Anxiety	Present	88	245.34	95.32	<i>t</i> -test	0.632	$d = 0.090$
	Absent	42	253.93	95.40			
Depression	Present	21	238.57	85.92	<i>t</i> -test	0.617	$d = 0.119$
	Absent	109	249.95	96.98			
No perceived psychological comorbidity	Present	22	240.23	87.92	<i>t</i> -test	0.671	$d = 0.100$
	Absent	108	249.72	96.76			
BMI	Continuous	129			Spearman ρ	0.518	$\rho = -0.057$

n = number of participants, SD = Standard Deviation, d = Cohen's d , η^2 = eta-squared, r = rank-biserial correlation coefficient, ρ = Spearman Correlation Coefficient.

Independent samples t -tests revealed no evidence of statistically significant differences in IBS-SSS scores between participants who reported psychological comorbidities and those who did not (stress $p = 0.167$, $d = -0.3$, anxiety $p = 0.632$, $d = 0.1$, depression $p = 0.617$, $d = 0.1$, none $p = 0.671$, $d = 0.1$). Corresponding effect sizes were small, with Cohen's d values indicating minimal practical differences in symptom severity between groups. These results suggest that, within this sample, the presence of perceived psychological comorbidity was not significantly

associated with IBS symptom severity.

Analysis also revealed no significant association between IBS-SSS and BMI ($p = 0.518$), with a very weak negative correlation ($\rho = -0.057$). This suggests that increases in BMI were associated with negligible decreases in symptom severity, indicating that BMI had minimal influence on IBS-SSS scores within the study sample. A summary of these results is presented in **Table 3**.

4. Discussion

The study revealed a predominantly female, health-literate cohort with moderate IBS symptom severity, actively engaged in self-management through dietary modification, digital information seeking and accessible treatments, yet constrained by limited age diversity and gaps in professional dietary support.

The cohort was characterised by moderate IBS symptom severity, which may explain the high rates of physician diagnosis, frequent information seeking via digital platforms and proactive engagement with treatment options [21] [22]. Food was the predominant symptom trigger, with dairy, vegetables, fruits, beans and legumes, and carbohydrates most frequently reported, aligning with established FODMAP sensitivities in IBS [23]-[26]. These findings underscore the central role of nutrition in symptom management. Reliance on online information sources suggests gaps in referral pathways and public awareness of dietetic services, reinforcing the need for greater integration of dietitians into multidisciplinary care models [12] [27]. Pharmacological interventions were also widely used, likely due to accessibility and perceived benefits such as gut microbiota modulation [28] [29]. Collectively, these results highlight a symptom-aware population actively engaged in self-management through dietary modification, digital information seeking and accessible treatments.

Perceived psychological comorbidities, particularly anxiety and stress, were frequently reported, reinforcing the role of brain-gut axis dysregulation in IBS pathophysiology [1] [30]-[32]. Minimal associations with symptom severity may reflect methodological constraints, such as reliance on binary self-reported measures rather than validated psychometric tools. Future care models should incorporate standardised instruments to better capture psychological burden and integrate psychological support alongside gastrointestinal management.

The cohort was predominantly female, consistent with the higher prevalence of IBS among women and their greater likelihood of participation due to more severe symptom profiles and treatment-seeking behaviours [1] [31] [33]. Biological and psychosocial mechanisms, including hormonal influences and heightened visceral sensitivity, have been proposed to explain this disparity [33]-[37]. Although females reported slightly higher mean IBS SSS scores, the small effect size limits interpretation, suggesting that gendered healthcare engagement rather than symptom severity may account for this imbalance. Age distribution was similarly constrained, limiting exploration of age-related differences despite evidence that younger adults often report heightened burden [37]-[40], while physiological changes in

older adults may reduce diagnostic likelihood [41] [42]. Lifestyle behaviours reflected relatively health-conscious practices, with low smoking prevalence and moderate alcohol intake, both of which may influence symptom burden [40] [43]-[45]. Participants also reported a mean BMI in the overweight range, consistent with national Maltese data [46]. Elevated BMI has been associated with IBS through mechanisms including altered motility, low-grade inflammation and dietary patterns [47]-[51], though evidence remains heterogeneous [52]. These demographic and behavioural characteristics highlight representativeness constraints and underscore the need for more diverse samples to clarify how sex, age and lifestyle interact with IBS symptomatology.

This study provides the first detailed profile of a sample of Maltese adults living with IBS, addressing a critical gap in the local literature and contributing to international understanding of the condition. By employing a context-specific, three domain questionnaires developed for the Maltese population, the research ensured cultural and linguistic relevance. Forward-back translation into English and Maltese enhanced accessibility, while the inclusion of Rome IV diagnostic criteria enabled identification of undiagnosed individuals meeting clinical thresholds. The use of the validated IBS-SSS facilitated standardised categorisation of symptom severity and supported comparability across studies. Recruitment strategies that combined social media outreach with outpatient clinic engagement strived to improve representativeness, by increasing the likelihood of capturing both digitally underserved subgroups and individuals with more clinically burdensome symptoms.

Several limitations warrant consideration. Reliance on self-reported data introduces potential recall and social desirability bias, while the predominantly female, highly educated cohort may limit generalisability to the wider Maltese population. Use of Rome IV criteria, although specific, may have constrained representativeness by identifying a narrower subset of individuals with more severe symptoms and psychological comorbidity. Moreover, diagnostic overlap with Rome III could not be assessed and subtypes were not analysed separately. Although eligibility criteria spanned ages 18 - 65 years, no participants were aged 46 years or older. Despite using a dual recruitment strategy through outpatient clinics and social media to capture a broad age range, engagement remained skewed toward younger and middle-aged adults. This may reflect lower awareness of IBS among older adults in Malta and a greater tendency to attribute gastrointestinal symptoms to ageing or existing comorbidities rather than a functional disorder. Additionally, age and gastrointestinal symptom severity are known to show a negative correlation [38] [40] and visceral sensitivity decreases with age [42], meaning older adults may experience milder or less disruptive symptoms and therefore be less motivated to seek medical care or participate in IBS-focused research. These factors likely contributed to the underrepresentation of older adults and limited the generalisability of age-related findings. The sample was highly educated (76% tertiary level), which may limit the applicability of the questionnaire to populations with

lower health literacy. Psychological comorbidities were captured through multiple-choice items rather than validated tools, reducing analytical sensitivity. Limited subgroup variability also restricted statistical power, rendering inferential analyses exploratory. Despite these constraints, the study provides the first detailed profile of Maltese adults with IBS, offering novel insights into symptom burden, self-management behaviours and healthcare engagement within a Mediterranean context.

5. Implications for Research, Practice and Policy

This study revealed that the majority of participants experienced moderate symptom severity, with food identified as a predominant symptom trigger and perceived psychological comorbidities frequently reported. These results underscore the need for a multidisciplinary care model that integrates gastroenterologists, dietitians and mental health professionals to address the multifaceted nature of IBS. The high reliance on pharmacological treatments further highlights the importance of expanding non-pharmacological support services, particularly dietetic care, which remains underutilised despite its growing recognition in the local context.

From a research perspective, future studies are encouraged to prioritise more balanced samples with respect to gender, age and health literacy, while also exploring longitudinal symptom trajectories, diagnostic pathways and the role of psychological distress using validated psychometric tools. Practice implications include the routine integration of dietetic and psychological support into IBS management, alongside improved patient education to support informed self-care. At the policy level, efforts need to focus on expanding access to multidisciplinary services, addressing health literacy disparities and supporting workforce development to meet the growing demand for IBS-specific care.

6. Conclusion

This study provides the first detailed profile of Maltese adults living with IBS, offering novel insights into symptom burden, dietary triggers, self-management behaviours and healthcare engagement within a Mediterranean context. By situating these findings within broader European evidence, the study contributes to a growing understanding of IBS in culturally specific settings and underscores the importance of dietetic-led, multidisciplinary and culturally tailored strategies to improve outcomes for individuals with IBS.

Author Contributions

Heather Galea: conceptualisation, data curation, formal analysis, investigation, methodology, validation, writing—original draft; Mario Caruana Grech Perry: methodology, supervision, writing—review and editing; Petra Jones: conceptualisation, methodology, supervision, writing—review and editing.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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