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Clinical Presentation of Irritable Bowel Syndrome and Related Quality of Life among Cameroonian Medical Students: A Cross-Sectional Descriptive Study

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Abstract

Background: Irritable Bowel Syndrome (IBS) is a functional gastrointestinal disorder characterized by chronic abdominal pain and altered bowel habits without structural abnormalities. Though non-lethal, it significantly affects the quality of life of sufferers. In Sub-Saharan Africa, data on IBS are limited. **Objective:** Describe the clinical presentation of IBS and the quality of life among medical students in our country. **Methods:** A descriptive cross-sectional prospective study was conducted in two medical schools. Stratified sampling was employed to recruit a total of 260 students. Data gathered included sociodemographic details, Rome IV diagnostic criteria, Bristol stool scale scores, gastrointestinal symptoms, and quality-of-life predictors. Statistical analysis was done using IBM SPSS version 26. **Results:** Out of the 260 students, the prevalence of presumed IBS was 11.2%. IBS-C was most common (41.4%), followed by IBS-D (31%), IBS-M (20.7%), and unclassified (6.9%). IBS-C was significantly associated with females ($p = 0.021$, Cramer's $V = 0.412$), irregular meals ($p = 0.013$, Cramer's $V = 0.519$), and morning predominance of pain ($p = 0.011$, Cramer's $V = 0.508$). The triad: defecation-related abdominal pain, altered stool consistency, and altered stool frequency was present in 68.9% of students with IBS. Most students with IBS reported diffuse (62.1%), persistent (34.5%) abdominal pain with mixed triggers and relieving factors. Quality of life was altered in 58.6% of students with IBS, with 10.3% experiencing severe impairment. **Conclusion:** Presumed IBS among medical students in our study was non-negligible, with a predominance of IBS-C. Clinical profile was dominated by diffuse, persistent abdominal pain with multiple triggers. Quality of life was altered in most students with IBS.

Keywords: IBS subtypes, clinical profile, quality of life, medical students, Cameroon

Introduction

Irritable Bowel Syndrome (IBS) is a chronic disorder of gut-brain interaction marked by abdominal pain associated with changes in bowel habits and occurring without identifiable structural abnormalities (Podolsky et al, 2016). It is a diagnosis of exclusion after eliminating organic causes. Prevalence rates in the community vary between 10-25% (Card et al, 2014). The pooled estimate in a meta-analysis reported an international prevalence of 11.2% (95% confidence interval, 9.8–12.8), with variation by geographic region (Card et al, 2014). Although IBS is not life-threatening, its impact on quality of life is remarkable (Mimiesse et al, 2017). It causes significant physical, emotional, and social impairment, and high rates of anxiety and

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depression. IBS is a common disorder of gut-brain interaction, yet data from Sub-Saharan Africa remain limited. scarce (Diallo et al., 2024 ; Eloumou Bagnaka et al., 2025; Kpossou et al., 2025; Saké et al., 2023; Sehounou et al., 2018). This study aimed to fill this gap by investigating IBS among students of two medical schools. To better understand this affection could improve the productivity of this young and active population.

Material and Methods

The study was a Cross-sectional and prospective descriptive one, conducted from the 1st of November 2024 to the 31st of July 2025, in the two medical schools established in our city. It was the Higher Institute of Medical Technology located in Nkolondom, at the outskirts of Yaoundé (medical school A). This is a non-stressful environment. The next one was the Faculty of Medicine and Biomedical Sciences of the University of Yaoundé 1, located in the heart of Yaoundé city (medical school B). There are many activities in this area. The study population was students enrolled in a Medicine program of either of the two medical schools. The duration of the training is seven years.

A stratified random sampling technique was used for a minimum sample size of 247 students. The calculation of the sample size was done through the Lorentz Formula: n = $\frac{t^2}{m^2} p(1-p)$ Where: n = sample size, p = estimated prevalence of the variable of interest, m = Precision level (margin of error), and t = confidence level.

For this study, P= 17.6% (prevalence in a study in Bangangté, in the West region of Cameroon by Eloumou et al), m=0.05, t = constant at 1.96. The computed minimum sample size adjusted to potential nonresponse (10%) was 247 students. For the sake of more powerful results, we decided to select 260 participants.

Each stratum was a level of training from the second to the seventh year. To obtain the number of students to be included in each of the 2 medical schools, simple proportions were used. For the 2025-2026 academic year, approximately 1133 students were enrolled in the Medicine program, 293 in medical school A and 840 in medical school B, representing respectively 26% and 74% of the total number of students registered in the Medicine program. Applying those proportions to the requested sample size, 68 students in medical school A and 192 students in medical school B were to be recruited.

Stratification was done with regard to the level of studies. On average, there were 50 students in each level at medical school A and 140 at medical school B; and again, using simple proportions, 11 students per level of study at medical school A and 32 students per level of study at medical school B were recruited irrespective of their gender.

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In each level of study from year 2 to year 7, medical students were randomly selected until the desired number per level was reached. Written consent was obtained from each selected student. Data collection was done using a questionnaire and conducted in 02 phases: an out-hospital screening phase with a self-reported questionnaire and an In-hospital confirmation and examination phase for those who reported abdominal pain evolving for at least 6 months. This physical exam looked for alarm signs of an organic disease: unexplained weight loss, lymph node enlargement, anaemia signs, and abdominal mass.

For each participant, we collected: age, gender, dietary habits, comorbidities, medications used, weight, and height to calculate their Body Mass Index (BMI). Medical students who fulfilled the following conditions were recruited: studying Medicine in Yaoundé (Cameroon) and having completed at least 2 semesters of medical studies, irrespective of the outcome.

The following were excluded: age ≤18 years, known chronic gastrointestinal pathology other than irritable bowel syndrome, unintentional weight loss, and refusal to give consent.

The study included 260 participants, predominantly female (63.1%), as supported by a sex ratio of 0.58 with a mean age of 22.1 ± 2.1 years. Most participants were affiliated with medical school B (67.3%), and the majority (33.5%) originated from the Centre region (Table 1).

Table 1: Sociodemographic profile of the study population

Sociodemographic parameters of the study population	**Frequency (n)**	**Percentage (%)**
Gender		
Female	164	63.1
Male	96	36.9
Sex ratio	0.58	
Age (year)		
Mean age	22.1 ± 2.1	
Range	18 - 30	
School		
Medical school A	68	26.2
Medical school B	192	73.8

According to the Rome IV classification, IBS is divided into 4 subtypes (IBS-D for diarrhea-predominant, IBS-C for constipation-predominant, IBS-M for mixed, and IBS-U for unclassified) (appendix 1). Assessment was done based on the patient's perception of consistency of abnormal stools indicated by the Bristol Stool Scale (appendix 2).

Assessment of the impact of IBS on daily activities and overall quality of life (QOL). It was measured using the IBS-QoL score and rated as: Unaltered if QoL score = 100, Altered if QoL score <100, Higher if QoL score >100 (appendix 3).

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Irregular meal patterns were diagnosed for those who had frequent consumption of spicy food, fatty meals, and beans before the appearance of IBS symptoms. The time predominance for the apparition of symptoms was also collected: in the morning or otherwise.

Statistical Package for Social Sciences (IBM- SPSS) version 26 was used for data analysis. Quantitative and normally distributed variables were described as means, median ± Standard deviation from the mean, and range. Qualitative variables were presented as frequencies and percentages. Chi-square or Fisher's exact test were ran to search for association between 2 categorical dichotomous variables depending on expected and observed numbers in each category of variables; *Independent sample t-test* and *Mann-Whitney U test* were ran to look for an association between dichotomous categorical variables and continuous normally distributed variables and between dichotomous categorical variables and non-normally distributed continuous variables respectively; *One-way ANOVA* and *Kruskal-Wallis H test* were also run to look for an association between polychotomous categorical variables and continuous normally distributed variables and between polychotomous categorical variables and non-normally distributed continuous variables respectively. Associations were considered statistically significant when the condition *P-value was <0.05*.

Results

Out of 260 students screened, 29 fulfilled the Rome IV criteria for the diagnosis of IBS. The prevalence of IBS 11.2%. The prevalence in females was 12.2% and 9.4% for males. There was no significant association between IBS and Gender (*P-value 0.486*). IBS-C was the most common subtype of IBS, representing 41.4% of all participants, followed by IBS-D (31%). There was a statistically significant association between IBS subtype and gender. IBS-C was associated with female gender, while IBS-D was associated with the male gender (Table 2).

Table 2: Distribution of IBS in students

Parameters	Frequency (n)	Percentage (%)
Number of IBS in students	29	11.2%
Gender of IBS in students		
Female	20	63.1
Male	9	36.9
Sex ratio	0.45	
Age (year) of IBS in students		
Mean age	22.2 years ± 1.8	
Range	18-25	
Body Mass Index of IBS in students		
Underweight	1	3.4
Normal weight	22	75.9
Overweight	4	13.8
Obesity	2	6.9

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The average age of students affected by IBS was 22.2 years ± 1.786 with a range varying from 18 years to 25 years. Female predominance (63.1%) was reported. Most students with IBS originated from the Centre (44.8%) and the West (31%) regions, and the majority of students with IBS (75.9%) had a normal BMI (Table 2).

The predominant symptom combination was that of "abdominal pain related to defecation, modification of stool consistency, and modification of stool frequency" reported by 68.9%. The second most reported symptom combination was that of "abdominal pain + Modification of stool consistency + modification of stool frequency," found in 20.7% of students with IBS. (Table 3).

Table 3: IBS symptom combinations at diagnosis

IBS symptoms combination	Frequency	Percentage (%)
Abdominal pain related to defecation + change in stool consistency	1	3.5
Abdominal pain related to defecation + change in stool frequency	2	6.9
Abdominal pain + change in stool consistency + change in stool frequency	6	20.7
Abdominal pain related to defecation + change in stool consistency + change in stool frequency	20	68.9
Total	**29**	**100**

Symptoms Characterization showed

a. Abdominal pain characteristics

Diffuse pain was the most reported, affecting 62.1% of students with IBS. Several types of pain were reported, including crampy, torsion, burns, lancinating, and tightness. Almost 35% of IBS students reported a mixed type of pain; crampy and tightness were both second in the ranking. Pain was permanent (occurring throughout the day) in most students with IBS (34.5%). Pain triggers included: consumption of spicy food, fatty meals and beans, stressful situations, and strong emotions. Sixty-nine (69%) of the population reported having the triad stress/spicy meals/strong emotions as pain triggers (mixed).

Most students with IBS (58.6%) reported a combination of relieving factors, especially among IBS-C and IBS-D subtypes. Almost a quarter (24.1%) of students with IBS found relief from passing gas.

b. Characteristics of diarrhoea

Two-thirds of students with IBS (66.7%) reported a morning predominance of diarrhoea. Almost 89 % of students with IBS experienced diarrhoea that was triggered by food intake. Faecal emergency was present in one-third of students with IBS. Presence of undigested food particles was noted by 22.2% of students with IBS. Most students with IBS reported moderate stool quantities, with only a minority passing out copious stool quantities.

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c. Characteristics of constipation

Most students with IBS who reported constipation did not have daily bowel movements, with only one-third reporting daily stools. More than ninety (91.7%) of students with IBS reported straining during defecation, all (100%) experienced incomplete emptying, and 41.7% reported the need for digital manoeuvres for relief.

Gender, meal patterns, and timing of pain were found to be related to IBS subtypes (Table 4). Gender distribution showed a predominance of IBS-C among female participants (91.7%), with a statistically significant difference and moderate effect size ($p = 0.021$, Cramer's $V = 0.412$). Meal patterns were also strongly associated with IBS subtypes ($p = 0.013$, Cramer's $V = 0.519$), as all participants with regular meal patterns were in the "Non-IBS-C subtype group, while those with irregular patterns were in the IBS-C subtype group. Timing of abdominal pain also demonstrated a significant relationship with IBS subtypes ($p = 0.011$, Cramer's $V = 0.508$); Morning pain was more reported by IBS-C students with IBS (Table 4).

Table 4: Factors related to IBS subtypes

	IBS-C	Non-IBS C	Total	P-value	Cramer's V	LLR
Gender						
Female	11	1	12			
Male	9	8	17	**0.021**	0.412	5.53
Meal pattern						
Irregular	12	9	21			
Regular	0	8	8	**0.013**	0.519	10.6
Timing of pain						
Morning	6	1	7			
Others	6	16	22	**0.011**	0.508	7.8

Mean score for overall QoL in students with IBS was 79.71 ±13.112 [42-100]. Quality of life scores were slightly higher in males (mean = 82.80) than in females (mean = 78.32) (Table 5).

Table 5: QoL score in IBS students regarding gender

	Absolute count	P-value
QoL score		
Female	78.3 ±14.6	
Male	82.8 ± 8.7	*0.417*
Overall	**79.7** ± 13.**1**	

Most IBS students with IBS (58.6%) had altered QoL. 27.8% experienced moderate impairment, and 10.3% had significantly reduced QoL. No association was found between QoL and gender (Table 5). Constipation-predominant IBS students with IBS reported the highest QoL scores (85.39). Mixed subtype had the lowest QoL scores (68.57), with the highest variability

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(SD = 19.425). There was no statistically significant difference in QoL scores across IBS subtypes (Table 6).

Table 6: QoL score in IBS students regarding the class

	Absolute count	Percentage (%)
QoL class		
Normal (score =100)	1	3.4
Altered (80 ≤ score<100)	17	58.6
Not significantly altered 65 ≤ score <80)	8	27.8
Significantly altered (score < 65)	3	10.3

Discussion

This study reveals a notable prevalence of IBS among medical students in the two medical schools, aligning with global estimates. The predominance of IBS-C and its association with female gender is consistent with existing literature. The symptom profile, marked by diffuse and persistent pain with multiple triggers and multiple relieving factors, reflects the complex nature of IBS.

The reported significant prevalence of IBS of 11.2% almost aligned with global estimates in the general population. It also closely approached what was reported in Bangangté and in 03 studies in Benin (Card et al, 2014; Eloumou Bagnaka et al, 2025; Saké et al, 2023; Kpossou et al, 2025; Sehounou et al, 2018). However, this prevalence contrasted with what has been reported in Yemen, Bangladesh, Saudi Arabia, and Egypt, where they were significantly higher (Al-Zahrani et al, 2022; El Sharawy et al, 2022; Das et al, 2024; Mahyoub et al, 2024). This gap could be due to the difference in methodology applied, or also to a lack of sensitivity of the Rome IV criteria in the diagnosis of IBS in our setting. These differences could also be explained by differences in lifestyle in these areas. People in sub Saharan African seems to be less stressed than in North Africa or in Asia, leading to this relatively lower prevalence of IBS.

The predominance of IBS-C among female participants aligns with global epidemiological trends, where female gender has consistently been linked to higher IBS prevalence, particularly the constipation subtype, suggesting that hormonal factors may contribute to gender-specific symptom patterns (Kim et al, 2018; Meleine, 2014). Meal patterns also emerged as a strong predictor of IBS-C, with irregular eating habits significantly associated with this subtype, supporting findings from Benin (Kpossou et al, 2025). A diet consisting of overly spicy foods and lacking in vegetables has been described as more associated with IBS-C.

Morning-predominant abdominal pain was also significantly associated with IBS-C. This may reflect heightened colonic activity upon waking, influenced by cortisol surges or anticipatory anxiety linked to academic pressures. This pattern has been observed in other populations, and

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reinforces the postulated link between stress and bowel dysfunction (Stengel et al, 2009; Drossman, 2016; Leigh et al, 2023).

Quality of life assessment showed that more than a quarter had moderately reduced QoL, and 10.3% experienced significant impairment. Mimiesse in Congo reported twice lower percentages in both categories in his study focusing on the general population with IBS (Mimiesse et al, 2017). This higher alteration of QoL in students may be due to a more severe manifestation of the disease in this population or may reflect a low capacity to cope with the disease in our study population. These findings underscore the substantial burden IBS places on students' quality of life. Quality of life scores were slightly higher in males (mean = 82.80) than in females (mean = 78.32), but the difference was not statistically significant ($p = 0.417$), suggesting that gender may not be a strong determinant of quality of life in IBS. This suggests that if males and females are exposed to the same risk factors, both could develop the condition. Although constipation-predominant IBS was associated with better QoL scores, the lack of statistical significance suggests that the subtype alone may not reliably predict quality of life impact. These findings reinforce the need for individualized management strategies. There are some practical implications for students in healthcare to reduce their stress, improve their dietary education, and receive psychological support.

Concerning its strength, this study increases data on IBS in Sub-Saharan Africa, where data regarding functional diseases are limited. The period is between 2024 and 2025, not long after the release of the new IBS ROME IV classification. The new IBS classification subtypes have been used. There is a good appreciation of the relationship between IBS and QoL. The population is students of two different medical schools, improving the reliability. Statistical methods of sampling have been applied to reduce selection bias. A physical exam was done for participants who presented with abdominal pain to exclude alarm signs of an organic disease.

This study, however, presents some limitations. Its cross-sectional design limits causal inference between risk factors and IBS symptoms and subtyping. The self-reporting may have introduced recall bias or underreporting of sensitive symptoms, and the single-city focus may not reflect findings in the broader medical student population. The features of diagnosis of IBS are abdominal pain, change in bowel habits, and change in stool consistency; taking into consideration the African context, where differentials of chronic abdominal pain such as parasitic intestinal infections and colon tumors, may present in young people, the lack of formal exclusion of these pathologies, as well as possible food allergies, also present as limitations. No laboratory test was done. Therefore, students with IBS identified in this study may be considered as presumed sufferers of IBS. Small

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subgroup sizes (IBS students n=29) limit the strength of subgroup statistical comparisons.

Conclusion

IBS is a prevalent and impactful condition among medical students in our setting. The clinical presentation is dominated by diffuse abdominal pain and defecation disorders, with substantial implications for quality of life. Targeted interventions are warranted to support affected students and reduce academic and health burdens.

Conflict of Interest: The authors reported no conflict of interest.

Data Availability: All data are included in the content of the paper.

Funding Statement: The authors did not obtain any funding for this research.

Declaration for Human Participants

The ethical clearance N° 0441/UY1/FMSB/VDRC/DAASR/CSD/emr was obtained from the Ethical Review Board of the University of Yaoundé 1 (Cameroon). Permission to have access to the various medical schools was requested and obtained from their respective administrations. Consent was obtained from the participants after detailed information on the study was provided. Confidentiality was assured by anonymization of data collection tools and their storage in a secure environment. In addition, electronic data was password-secured on a computer.

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Appendix

1. Rome IV Classification

Rome IV classification divides IBS into 4 classes, which are defined as follows:

- IBS-C (constipation): meet diagnostic criteria for IBS and > 25% of bowel movements with Bristol stool type 1 or 2 and <25% of bowel movements with Bristol stool type 6 or 7.
- IBS-D (diarrhea): meet diagnostic criteria for IBS and > 25% of bowel movements with Bristol stool type 6 or 7 and <25% of bowel movements with Bristol type 1 or 2
- IBS-M (mixed): meet diagnostic criteria for IBS and > 25% of bowel movements with Bristol type 1 or 2 and > 25% of bowel movements with Bristol type 6 or 7
- IBS-U (unclassified): meet diagnostic criteria for IBS but whose bowel movements cannot be categorized either into IBS-C, IBS-D, or IBS-M.

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2. Questionnaire sur symptômes du syndrome de l'intestin irritable

Question	*Réponse*
1. Au cours des 3 derniers mois, à quelle fréquence avez-vous ressenti une douleur n'importe où dans votre abdomen ?	⓪ Jamais □ ***Passer à fin du questionnaire*** ① Moins d'un jour sur un moi ② Un jour sur 1 mois ③ Deux à trois jours par mois ④ Une fois par semaine ⑤ Deux à trois jours par semaine ⑥ La plupart des jours ⑦ Tous les jours ⑧ Plusieurs fois par jour
2. À quelle fréquence cette douleur dans votre abdomen est-elle survenue juste avant, pendant ou peu après une selle ? (Pourcentage de fois avec douleur)	⓪ 0% Jamais ① 10% ② 20% ③ 30% ④ 40% ⑤ 50% ⑥ 60% ⑦ 70% ⑧ 80% ⑨ 90% ⑩ 100% Toujours
3. À quelle fréquence vos selles sont-elles devenues soit plus molles que d'habitude, soit plus dures que d'habitude lorsque vous aviez cette douleur ? (Pourcentage de fois avec douleur)	⓪ 0% Jamais ① 10% ② 20% ③ 30% ④ 40% ⑤ 50% ⑥ 60% ⑦ 70% ⑧ 80% ⑨ 90% ⑩ 100% Toujours
4. À quelle fréquence vos selles sont-elles devenues soit plus fréquentes que d'habitude, soit moins fréquentes que d'habitude lorsque vous aviez cette douleur ? (Pourcentage de fois avec douleur)	⓪ 0% Jamais ① 10% ② 20% ③ 30% ④ 40% ⑤ 50% ⑥ 60% ⑦ 70% ⑧ 80% ⑨ 90% ⑩ 100% Toujours
5. Cela fait-il 6 mois ou plus que vous avez commencé à ressentir cette douleur ?	⓪ No ① Yes

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Instruction : Bien vouloir regarder la figure ci-dessous qui décrit les différents types de selles possibles et répondre à la question 6 qui suit.

Les selles de type 1 ou 2 et de type 6 ou 7 sur l'image ci-dessus peuvent être considérées comme anormales. Le type 1 ou 2 signifie que vous êtes constipé, et le type 6 ou 7 signifie que vous avez de la diarrhée

6. Au cours des 3 derniers mois, lorsque vous avez eu des selles anormales, comment étaient-elles en général ?	① Constipation en général (comme type 1 ou 2 de la figure) ② Diarrhée en général (comme type 6 ou 7 de la figure) ③ Autant diarrhée que constipation, c'est-à-dire que plus d'un quart des selles anormales étaient de type constipation et plus d'un quart étaient de type diarrhée ④ Non applicable, car je n'ai jamais ou rarement eu des selles anormales

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3. Quality of life assessment

Instructions: *Veuillez penser à votre vie au cours du **mois dernier (30 jours)** et examiner les déclarations ci-dessous. Chaque déclaration a cinq réponses possibles. Pour chaque déclaration, veuillez remplir une case dans chaque ligne qui décrit le mieux vos sentiments.*

		Pas du tout	Légèrement	Modérément	Beaucoup	Énormément
QL1	Je me sens désarmé à cause de mes problèmes intestinaux.	1	2	3	4	5
QL2	Je suis gêné par l'odeur causée par mes problèmes intestinaux.	1	2	3	4	5
QL3	Je suis gêné par le temps que je passe aux toilettes.	1	2	3	4	5
QL4	Je me sens vulnérable à d'autres maladies à cause de mes problèmes intestinaux	1	2	3	4	5
QL5	Je me sens gros/grosse à cause de mes problèmes intestinaux.	1	2	3	4	5
QL6	J'ai l'impression de perdre le contrôle de ma vie à cause de mes problèmes intestinaux.	1	2	3	4	5
QL7	Je trouve ma vie moins agréable à cause de mes problèmes intestinaux.	1	2	3	4	5
QL8	Je me sens mal à l'aise quand je parle de mes problèmes intestinaux.	1	2	3	4	5
QL9	Je me sens déprimé à cause de mes problèmes intestinaux.	1	2	3	4	5
QL10	Je me sens isolé des autres à cause de mes problèmes intestinaux.	1	2	3	4	5
QL11	Je dois contrôler la quantité de nourriture que je mange à cause de mes problèmes intestinaux.	1	2	3	4	5
QL12	À cause de mes problèmes intestinaux, l'activité sexuelle est difficile pour moi.	1	2	3	4	5
QL13	Je suis en colère d'avoir ces problèmes intestinaux.	1	2	3	4	5
QL14	J'ai l'impression de gêner les autres à cause de mes problèmes intestinaux.	1	2	3	4	5
QL15	Je m'inquiète que mes problèmes intestinaux ne s'aggravent pas.	1	2	3	4	5
QL16	Je me sens irritable à cause de mes problèmes intestinaux.	1	2	3	4	5
QL17	Je crains que les gens ne pensent que j'exagère mes problèmes intestinaux.	1	2	3	4	5
QL18	J'ai l'impression d'être moins performant à cause de mes problèmes intestinaux.	1	2	3	4	5
QL19	Je dois éviter les situations stressantes à cause de mes problèmes intestinaux.	1	2	3	4	5
		Pas du tout	Légèrement	Modérément	Beaucoup	Énormément

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QL20	Mes problèmes intestinaux réduisent mon désir sexuel.	1	2	3	4	5
QL21	Mes problèmes intestinaux conditionnent mon habillement	1	2	3	4	5
QL22	Je dois éviter les activités physiques intenses à cause de mes problèmes intestinaux.	1	2	3	4	5
QL23	Je dois surveiller ce que je mange à cause de mes problèmes intestinaux.	1	2	3	4	5
QL24	À cause de mes problèmes intestinaux, j'ai du mal à être autour de personnes que je ne connais pas bien.	1	2	3	4	5
QL25	Je me sens léthargique à cause de mes problèmes intestinaux.	1	2	3	4	5
QL26	Je me sens sale à cause de mes problèmes intestinaux.	1	2	3	4	5
QL27	Les longs trajets sont difficiles pour moi à cause de mes problèmes intestinaux.	1	2	3	4	5
QL28	Je me sens frustré de ne pas pouvoir manger quand je le veux à cause de mes problèmes intestinaux.	1	2	3	4	5
QL29	Il est important d'être près d'une toilette à cause de mes problèmes intestinaux.	1	2	3	4	5
QL30	Ma vie tourne autour de mes problèmes intestinaux.	1	2	3	4	5
QL31	Je crains de perdre le contrôle sur mes intestins.	1	2	3	4	5
QL32	Je crains de ne pas pouvoir faire des selles.	1	2	3	4	5
QL33	Mes problèmes intestinaux affectent mes relations les plus proches.	1	2	3	4	5
QL34	Je sens que personne ne comprend mes problèmes intestinaux.	1	2	3	4	5