Basic information:

Demographic data			
Name		**Tel**	
Gender	□1 male □2 female	**Birth date**	|_|_|_|year|_|_| |_|_|
Age	□1 18-30y □2 31-40y □3 41-50y □4 51-60y □5 61-70y		
Nationality	□1Han □2 Zhuang □3Manchu □4Hui □5Miao □6 Uyghur □7Other：____		
ID Number	|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|		
Marital status	□1 Yes □0 No	**Body Weight**	|_|_|_|.|_| kg
Height	|_|_|_|.|_| cm		
Educational background	□1Postgraduate and above □2Undergraduate □3College □4High school/technical school/technical school □5 Junior high School □6 Primary School □7 Below the above		
Occupation	□1 Worker □2 Farmer □3Teacher □4Soldier □5Student □6Cadre □7 Medical worker □8Lawyer □9Staff □10Retired □11 Freelancers □12Others_____		
Family history	□1 None □2 Yes, please continue to fill out the form below		
Disease name of FH	□1 Parkinson's disease □2 Colorectal cancer □3 IBS □4 Inflammatory bowel disease □5 Others_____		

Laxative/Suppository Usage:

☐ Never (0 points)

☐ Occasionally (1–2 times/week, 1 point)

☐ Frequently (≥3 times/week, 2 points)

☐ Regularly (daily or persistent, 3 points)

Medical History:

Course of disease	The first onset of Parkinson's disease：|_|_|Year|_|_|Month The first onset of Parkinson's constipation： |_|_|Year|_|_|Month
Hoehn-Yahr (Modified) Grade	□1 Grade 1 Unilateral limb disease □2 Grade 1.5 unilateral limb with trunk (axis) symptoms □3 Grade 2.0 bilateral limb symptoms without balance disorder □4 Grade 2.5 mild bilateral limb symptoms, can recover from the pull test ☞5 Grade 3.0 mild to moderate bilateral symptoms, inability to recover from a pullback test, unstable posture, slower turning, limited in many functions, but self-reliant □6 Level 4.0 severe disability, can still stand and walk without assistance □7 Level 5.0 in a wheelchair or bed, completely dependent on others for help

Correlation scale:

Supplementary Table I. Parkinson's Disease Non-Motor Symptom Assessment Scale (NMSS)

The score is based on the patient's own condition in the last month

Severity :1= mild, showing symptoms but causing only mild discomfort or pain to the patient

2= moderate, with symptoms that cause some pain to the patient

3= severe, with symptoms that cause great distress to the patient

Frequency: 1= rarely (less than once a week); 2= often (once a week); 3= frequent (several times a week); 4= Very frequent (daily or persistent)

NO.	Item	No	Yes						
			Degree			frequency			
			Mild	moderate	severe	rarely	frequent	very frequent	Extremely frequent
1	Mild headache, dizziness, or weakness when moving from lying down or sitting to standing		1	2	3	1	2	3	4
2	Fall due to dizziness or loss of consciousness		1	2	3	1	2	3	4
3	Napping is common during the day when talking, eating, watching TV, or reading		1	2	3	1	2	3	4
4	Fatigue or inability to function during the day		1	2	3	1	2	3	4
5	Difficulty falling asleep or waking up easily at night		1	2	3	1	2	3	4
6	Discomfort in both lower limbs when sitting or lying down at rest, requiring constant activity to relieve		1	2	3	1	2	3	4
7	Lose interest in what's going on		1	2	3	1	2	3	4
8	Reduced activity initiative and reluctance to try new things		1	2	3	1	2	3	4
9	Looks or feels sad and depressed		1	2	3	1	2	3	4
10	Feeling anxious, nervous, or panicked		1	2	3	1	2	3	4
11	No emotional ups and downs, lack of normal emotional experience		1	2	3	1	2	3	4
12	Lack of pleasant life experiences in daily life		1	2	3	1	2	3	4
13	Seeing or hearing things that aren't there		1	2	3	1	2	3	4
14	Delusions, such as when someone harms themselves, is robbed, or is unfaithful		1	2	3	1	2	3	4
15	See things double, one as two		1	2	3	1	2	3	4

16	Difficulty concentrating on things, such as reading or talking		1	2	3	1	2	3	4
17	Difficulty remembering recent events		1	2	3	1	2	3	4
18	Forget to do something like take medicine		1	2	3	1	2	3	4
19	Drooling during the day		1	2	3	1	2	3	4
20	Difficulty swallowing or choking		1	2	3	1	2	3	4
21	Constipation (less than 3 bowel movements a week)		1	2	3	1	2	3	4
22	Urgent urination		1	2	3	1	2	3	4
23	Frequent urination (less than 2 hours between urination)		1	2	3	1	2	3	4
24	Increased urination at night		1	2	3	1	2	3	4
25	Altered sexual desire，Increase or decrease		1	2	3	1	2	3	4
26	Have difficulty in sexual life		1	2	3	1	2	3	4
27	Unexplained pain (whether it's drug-related or whether it's relieved by anti-PD drugs)		1	2	3	1	2	3	4
28	Reduced function of taste or smell		1	2	3	1	2	3	4
29	Unexplained weight change (excluding the influence of diet)		1	2	3	1	2	3	4
30	Increased sweating (excluding the effects of hot weather)		1	2	3	1	2	3	4

Supplementary Table II. Parkinson's Autonomic Symptom Rating Scale (SCOPA-AUT)

0□Never（0 points） 1□Sometimes（1 point） 2□Always（2 points） 3□Frequently（3 pionts）

NO.	Problem	Scoring
1	During the past month, have you had difficulty swallowing or coughing?	0☞ 1□ 2□ 3□
2	In the past month, have you ever salivated?	0☞ 1□ 2□ 3□
3	In the past month, have you ever had food stuck in your throat?	0☞ 1□ 2□ 3□
4	In the past month, have you ever eaten a meal and suddenly felt full?	0☞ 1□ 2□ 3□
5	Have you been constipated in the past month? (Constipation: 2 times a week or less)	0☞ 1□ 2□ 3□
6	Have you had loose stool in the past month?	0☞ 1□ 2□ 3□
7	During the past month, have you had fecal incontinence?	0☞ 1□ 2□ 3□
8	In the past month, have you had trouble holding your urine?	0☞ 1□ 2□ 3□
9	During the past month, have you been incontinent at any time?	0☞ 1□ 2□ 3□
10	In the past month, have you ever felt like you couldn't urinate?	0☞ 1□ 2□ 3□
11	In the past month, have you had a small flow of urine during urination?	0☞ 1□ 2□ 3□
12	In the past month, have you had to urinate less than 2 hours after urinating?	0☞ 1□ 2□ 3□
13	During the past month, have you ever had to get up at night to urinate?	0☞ 1□ 2□ 3□
14	In the past month, have you ever stood up and either felt dizzy, unable to see, or unable to think clearly?	0☞ 1□ 2□ 3□
15	During the past month, have you ever stood for a while and felt dizzy?	0☞ 1□ 2□ 3□
16	Have you had any episodes of fainting in the past 6 months?	0☞ 1□ 2□ 3□
17	During the past month, have you ever sweated excessively during the day?	0☞ 1□ 2□ 3□
18	In the past month, have you ever sweated a lot at night?	0☞ 1□ 2□ 3□
19	During the past month, have your eyes been particularly sensitive to bright light?	0☞ 1□ 2□ 3□
20	In the past month, how many times did you not tolerate the cold?	0☞ 1□ 2□ 3□
21	During the past month, how many times did you not tolerate the heat?	0☞ 1□ 2□ 3□
The following three questions are for men only.		
22	In the past month, have you been unable to lift? (Can't get an erection, or can't last after erection)	0☞ 1□ 2□ 3□
23	In the past month, have you been unable to ejaculate? (Exception: Not applicable)	0☞ 1□ 2□ 3□
23a	In the past month, have you taken any medication for erectile dysfunction?	0☞ 1□ 2□ 3□
The following two questions should only be answered by women.		
24	In the past month, has your vagina been too dry during sex? (Exception: Not applicable)	0☞ 1□ 2□ 3□
25	In the past month, have you had difficulty achieving orgasm? (Exception: Not applicable)	0☞ 1□ 2□ 3□
	Total points:	

Supplementary Table III. Wexner constipation score

Project	Score	Project	Score
Defecation frequency		Time: Time in the toilet (min)	
Once or twice every 1-2 days	0□	Less than 5	0□
Twice a week	1□	5-10	1□
Once a week	2□	10-20	2□
Less than once a week	3□	20-30	3□
Less than once a month	4□	Greater than 30	4□
Difficulty: Pain assessment		Auxiliary: Auxiliary mode	
Never	0☞		
Seldom	1□	None	0☞
Sometimes	2□	Stimulant laxative	1□
Usually	3□	Finger assistance or enema	2□
Always	4□		
Completeness: Incomplete sensory assessment		Failed: Number of failed defecation attempts in 24 hours	
Never		None	
Seldom	0☞	1-3 times	0☞
Sometimes	1□	3-6 times	1□
Usually	2□	6-9 times	2□
Always	3□	More than 9 times	3□
	4□		4□
Pain: Abdominal pain		Medical history: Duration of constipation (years)	
Never	0☞	0	
Seldom	1□	1-5	0☞
Sometimes	2□	5-10	1□
Usually	3□	10-20	2□
Always	4□	More than 20	3□
			4□
Total points:			

Supplementary Table IV. PAC-QOL score on QOL of constipation patients

The following problems are associated with the symptoms of constipation. In the past 2 weeks, the severity or intensity of the following symptoms...	NEVER	A LITTLE	Ordinary	Relatively serious	Very serious
	1	2	3	4	5
1. Feeling bloated?	□	□	□	□	□
2. Feeling heavy?	□	□	□	□	□
The following questions are about constipation and daily life. How many times in the past two weeks...	NEVER	A LITTLE	At times	Most of the time	Always
	1	2	3	4	5
3. Feeling under the weather?	□	□	□	□	□
4. Feel the need to poop but can't solve it?	□	□	□	□	□
5. Uncomfortable around other people?	□	□	□	□	□
6. Eating less and less due to constipation?	□	□	□	□	□
The following questions are about constipation and daily life. In the past 2 weeks, the severity or intensity of the following problems...	NEVER	A LITTLE	At times	Relatively serious	Very serious
	1	2	3	4	5
7. Must care about what you eat?	□	□	□	□	□
8. Losing your appetite?	□	□	□	□	□
9. Worried about not being able to make random food choices (like at a friend's house)?	□	□	□	□	□
10. Feeling uncomfortable spending too much time in the bathroom while out and about?	□	□	□	□	□
11.Feel uncomfortable going to the bathroom too often when you're out and about?	□	□	□	□	□

12. Always worried about changing your lifestyle (traveling, going out, etc.)?	□	□	□	□	□
The following questions are related to the feeling of constipation. The frequency of the following symptoms in the past 2 weeks	NEVER	ALITTLe	At times	Most of the time	Always
	1	2	3	4	5
13. Feeling irritable?	□	□	□	□	□
14. Feeling upset?	□	□	□	□	□
15. Always obsessing?	□	□	□	□	□
16. Feeling nervous?	□	□	□	□	□
17. lack of self-confident?	□	□	□	□	□
18. Feeling completely constipated and unable to do what you want?	□	□	□	□	□
The following questions are related to the feeling of constipation. In the past 2 weeks, the severity or intensity of the following problems...	NEVER	ALITTLe	At times	Relatively serious	Very serious
	1	2	3	4	5
19. Worried about not knowing when you can have a bowel movement?	□	□	□	□	□
20. Worried about not being able to defecate?	□	□	□	□	□
21. Affecting your life by not defecating?	□	□	□	□	□
The following questions are about constipation and daily life. In the past 2 weeks, the frequency of the following symptoms.....	NEVER	ALITTLe	At times	Most of the time	Always
	1	2	3	4	5
22. Worried that things will get worse?	□	□	□	□	□
23. Feeling like your body can't work properly?	□	□	□	□	□
24. Having fewer bowel movements than you thought?	□	□	□	□	□

The next question is about satisfaction. In the past 2 weeks, the severity or intensity of the following problems...	Not at all	kinda	So so	Relatively satisfied	Very satisfied
	1	2	3	4	5
25. Satisfied with the number of bowel movements?	□	□	□	□	□
26. Are you satisfied with your bowel movements?	□	□	□	□	□
27. Satisfied with the time it takes food to pass through your intestines?	□	□	□	□	□
28. Satisfied with previous treatment?	□	□	□	□	□

Scores for physiologically related items.		Scores for psychologically related items	
Scores for items related to worry		scores for items related to satisfaction	
Total points:			

Supplementary Table V. Hamilton Depression Scale (HAMD)

No.	Content	0=None	1=Light	2=Medium	3=severe	4=Most severe	Score
1	Melancholy mood	None	Tell only when asked	Spontaneous expression	Shows in the tone	In one's words and deeds	□
2	Feeling guilty	None	Self-blaming	Ruminating on one's own fault	Delusions of guilt	Threatening hallucinations	□
3	Suicide	None	No sense of life	Often think of death	Suicidal thoughts	Serious suicidal behavior	□
4	Difficulty falling asleep	None	Sometimes	Every night			□
5	Sleep not deep	None	Mild	Serious			□
6	Wake up early	None	Can sleep after waking up	Can not sleep after wake			□
7	Work and interest	None	Tell only when asked	Spontaneous expression o	Decline in activity and efficiency	Stop work	□
8	Block (slow)	None	Mild slow	Obviously slow	Hard to talk	Stupor	□
9	Agitated	None	A little uneasy	Obviously uneasy	Can not sit still	Little movements	□
10	Mental anxiety	None	Tell only when asked	Spontaneous expression o	Shows in the tone	Obvious panic	□
11	Physical anxiety	None	Mild	Moderate	Severe	Affect life	□
12	Gastrointestinal symptoms	None	Loss of appetite	Require digestive drugs			□
13	Systemic symptoms	None	Pain or fatigue	More severe symptoms			□
14	Sexual symptoms	None	decreased sexual desire	More severe symptoms			□
15	Hypochondria	None	Excessive attention to the body	Repeatedly thinking about health problems	Have hypochondria delusions	Hallucinations meanwhile	□
16	Weight loss	None	Possible	Must be			□
17	Self-knowledge	None	admit illness	deny illness			□
Points							□□

Supplementary Table VI. Hamilton Anxiety Scale (HAMA)

(note:0=none; 1=mild symptoms; 2=positive symptoms but do not affect life and activities; 3= Symptoms require serious management; 4= Symptoms are extremely severe and affect normal life.)

The total score ≥29 May be severe anxiety; ≥21 points, obvious anxiety; ≥14 points, definitely anxiety; More than 7 points, anxiety possible; If less than 7 points, no anxiety.

No.	Content	0	1	2	3	4	Score
1	Anxious mood: worried, worried, feeling that the worst is about to happen, easily irritated						□
2	Nervousness: nervousness, fatigue, inability to relax, emotional reactions, crying, shaking, feeling uneasy						□
3	Fear: Fear of the dark, strangers, being alone, animals, cars or travel, and large crowds						□
4	Insomnia: difficult in falling asleep, easy to wake up, not sleeping deeply, many dreams, night terrors, fatigue after waking up						□
5	Cognitive function: or so called memory orattention disorders, inability to concentrate attention, poor memory						□
6	Depressive mood: loss of interest, lack of pleasure in previous hobbies, depression, early wake up, diurnal severity						□
7	Somatic anxiety (muscular system) : muscle soreness, immobility, muscle twitching, teeth chattering, voice chattering						□
8	Somatic anxiety (sensory system) : blurred vision, chills, fever, weakness, tingling						□
9	Cardiovascular system symptoms: tachycardia, palpitation, chest pain, pulsation of blood vessels, fainting, cardiac leakage						□
10	Respiratory symptoms: chest tightness, choking, sighing, dyspnea						□
11	Gastrointestinal symptoms: dysphagia, belching, dyspepsia (abdominal pain after eating, nausea, stomach fullness), bowel movement, bowel ringing, diarrhea, weight loss, constipation						□
12	Genitourinary system symptoms: frequency of urination, urgent urination, menopause, cold sex, premature ejaculation, impotence						□
13	Autonomic symptoms: dry mouth, flushing, paleness, easy sweating, goosebumps, tension headache, hair standing up						□
14	Behavior during the interview: (1) nervous, unable to relax, nervous, biting fingers, clenching fists, touching handkerchiefs, facial twitching, restless feet, shaking hands, frowning, stiff expression, high muscle tension, sighing breathing, pale face.(2) Physiological manifestations: swallowing, hiccup, rapid heart rate when quiet, breathing (more than 20 times/min), tendon hyperreflexia, tremor, pupil dilation, eyelid pulsation, easy sweating, exophthalmia.						□
Total							□□

Supplementary Table VII. Parkinson's Disease Medication Use Among Participants

Medication Type	Number of Users (N)	Proportion (%)
Levodopa	68	70.1
Dopamine agonists	41	42.3
COMT inhibitors	19	19.6
Anticholinergic drugs	26	26.8