

# Comparison of Quality of Life between Patients with Diarrhea- and Constipation-Predominant Irritable Bowel Syndrome

JOELLE BOUSABA<sup>1</sup>, Saam Dilmaghani<sup>1</sup>, Ann Taylor<sup>1</sup>, Irene Busciglio<sup>1</sup>, Michael Camilleri<sup>1</sup>  
<sup>1</sup>: Division of Gastroenterology and Hepatology, Mayo Clinic, Rochester, MN

## INTRODUCTION

Irritable bowel syndrome (IBS) is characterized by recurrent abdominal pain and change in the form and consistency of stool. Two subtypes of IBS are diarrhea-predominant IBS (IBS-D) and constipation-predominant IBS (IBS-C). While IBS symptoms have been shown to decrease quality of life (QOL), the effects of IBS subtypes on QOL are still unclear.

## AIM

The aim of this study was to compare QOL parameters in patients with IBS-D and IBS-C.

## METHODS

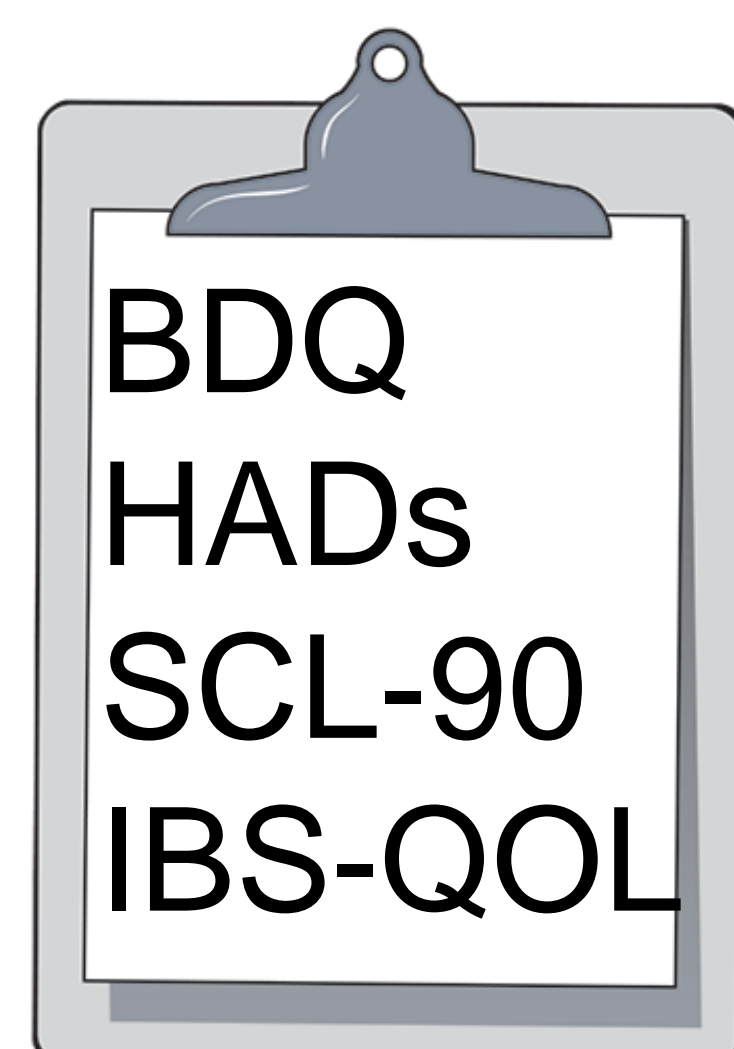


Irritable bowel syndrome

IBS-D

IBS-C

Assessment of quality of life



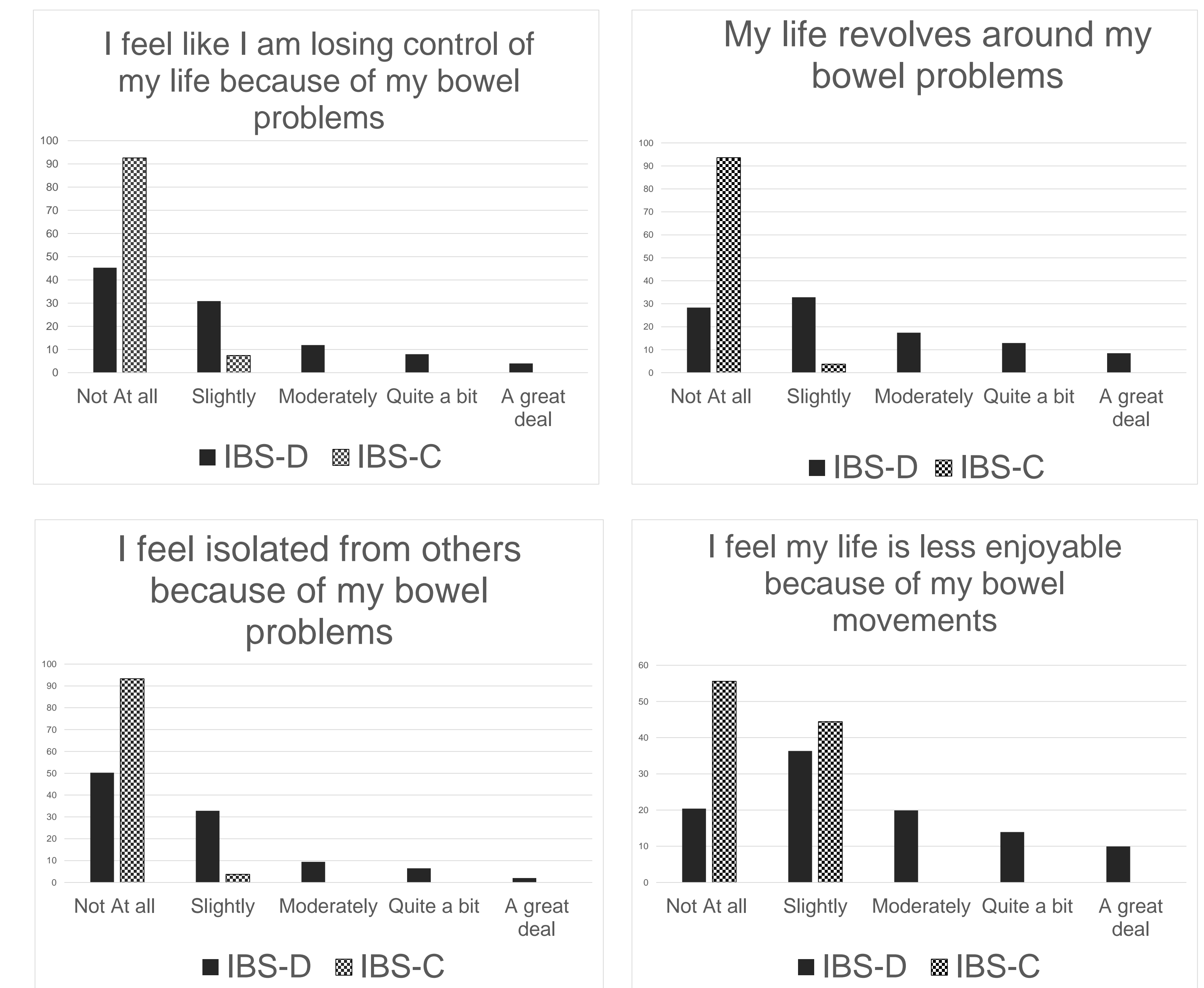
## RESULTS

**Table:** Demographics, Anxiety, depression, general quality of life, and IBS-specific quality of life as measured by the Hospital Anxiety and Depression Scale (HADS), the Symptom Checklist-90 (SCL-90), and the IBS-Quality of Life questionnaire (IBS-QOL) in 219 patients with IBS-D and 33 patients with IBS-C

	IBS-D	IBS-C	P-value
<b>Demographics</b>			
Age (years), mean (SD)	41 (14)	51 (12)	0.0001
% Females	79	100	0.004
BMI (kg/m <sup>2</sup> ), mean (SD)	30 (7)	28 (6)	0.1878
White, n (%)	208 (94.98)	33 (100)	0.188
Non-Hispanic, n (%)	231 (91.67)	32 (96.97)	0.237
<b>Hospital Anxiety and Depression Scale</b>			
HADS total score, mean (SD)	8.5 (5.2)	3.4 (2.6)	<0.0001
HADS anxiety score, mean (SD)	6 (3.6)	2.5 (1.9)	<0.0001
HADS depression score, mean (SD)	2.5 (2.3)	0.97 (1.1)	0.0006
<b>Symptom Checklist-90</b>			
Global severity index, mean (95% CI)	0.32 (0.27, 0.37)	0.134 (0.09, 0.18)	0.0093
Positive symptom total, mean (95% CI)	17.9 (15.6, 20.2)	7.6 (4.7, 10.5)	0.0009
<b>Dimensions</b>			
Somatization	0.45 (0.39, 0.51)	0.25 (0.16, 0.33)	0.0201
Obsessive compulsive	0.43 (0.36, 0.50)	0.16 (0.06, 0.27)	0.0118
Interpersonal sensitivity	0.33 (0.25, 0.40)	0.14 (0.07, 0.21)	0.1168
Depression	0.43 (0.35, 0.50)	0.15 (0.06, 0.24)	0.0166
Anxiety	0.25 (0.19, 0.30)	0.06 (0.13, 0.10)	0.0169
Hostility	0.27 (0.22, 0.32)	0.16 (0.06, 0.26)	0.1655
Phobic anxiety	0.16 (0.11, 0.21)	0.6 (0.00, 0.11)	0.1628
Paranoid ideation	0.17 (0.11, 0.22)	0.11 (-0.00, 0.22)	0.4873
Psychoticism	0.11 (0.08, 0.14)	0.13 (-0.00, 0.28)	0.0228
<b>IBS-Quality of Life</b>			
Total score, mean (95% CI)	30.1 (27.6, 32.5)	9.1 (6.7, 11.5)	<0.0001
<b>Subscales, mean (95% CI)</b>			
Dysphoria	28.1 (24.8, 31.5)	4.2 (1.9, 6.4)	<0.0001
Interference with activity	37.2 (34.2, 40.2)	7.1 (4.3, 10.0)	<0.0001
Body image	26.9 (24.2, 29.6)	18.3 (13.6, 23.0)	0.0249
Food avoidance	52.7 (48.5, 56.9)	13.0 (8.0, 17.9)	<0.0001
Social reaction	27.5 (24.5, 30.5)	8.1 (4.0, 12.2)	<0.0001
Sexual	17.2 (14.1, 20.2)	8.3 (2.8, 13.8)	0.0425
Relationship	20.1 (17.5, 22.8)	3.7 (1.4, 6.0)	<0.0001
Health worry	22.9 (20.5, 25.3)	18.2 (12.9, 23.5)	0.1777

Higher scores on HADS, SCL-90, and IBS-QOL indicate a worse anxiety, depression, psychological symptoms, and quality of life, respectively; CI: confidence interval, SD: standard deviation

**Figure:** Quality of life parameters (as shown in the IBS-QOL questionnaire) in 219 patients with IBS-D and 33 patients with IBS-C



Y axis shows percentage of patients with responses according to the 5 adjectival scales shown on the X axis

## CONCLUSION

Our study shows that patients with IBS-D seem to have a worse general and IBS-specific quality of life compared to patients with IBS-C. These data reinforce the importance of considering QOL impact of IBS and opportunities for shared decision-making when discussing individual management plans for patients with IBS-D.