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# View Abstract

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## **ABSTRACT**

**TITLE:** GUT-BRAIN AXIS AND IRRITABLE BOWEL SYNDROME DURING SARS COV-2 PANDEMIC. A SURVEY BASED STUDY.

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## **ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION: Irritable bowel syndrome (IBS) is a functional disorder with high prevalence impacting on patient's quality of life. IBS is considered a multifactorial entity, in which socioemotional factors and social stress might play a central role in the generation and worsening of symptoms. The mandatory lockdown in response to SARS CoV-2 pandemic, represents a unique scenario of reduced social interaction and complexity, potentially impacting the IBS-patients' symptoms evolution.

OBJECTIVE: To evaluate the impact of the mandatory lockdown due to the SARS CoV-2 pandemic on the brain-gut axis symptomatology in IBS patients.

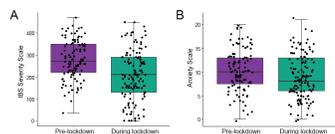
MATERIAL AND METHODS: All IBS-diarrhea and mixed bowel habits pattern subtype patients, from an existing Rome IV-defined cohort database, were invited to participate (n = 129, mean age 54 [+/-16], 78% female). Patients were assessed via an online survey or phone interview. The survey included Irritable Bowel Syndrome Severity Scale (IBS-SS), Likert scale, as well as measures of Bristol scale, anxiety and depression and somatization. Further, patients were asked about comorbidities (pyrosis and/or regurgitation, dyspepsia, chronic fatigue, fibromyalgia, non-migraine headache, weight and eating habits). Most of this data was compared with pre-pandemic existing data.

RESULTS: During lockdown, there was a significant decrease in severe IBS patients' proportion (50.39 % vs 30 %, p=0.000) compared to the pre pandemic state. Before pandemic, this cohort of patients had a mean IBS-SS of 278.54 (+/- 88.64) compared to 212.36 (+/-117.50) during lockdown (difference -65.9 [95% CI: -89.4 to -42.4]; p = 0.000). Likewise, there was a decrease of one average point on the Likert Scale on global IBS symptoms, pain, and distension, as well as an improvement in stool consistency (2-point average decrease on Bristol Scale). Similarly, anxiety and somatization scores were improved and there was a significant decrease in fibromyalgia and chronic fatigue symptoms during lockdown (in comparison with pre-pandemic times). Conversely, headache and pyrosis and/or regurgitation symptoms increased significantly. These effects remained when adjusted for confounders (age, sex, anxiety, and depression), evidencing that the mandatory lockdown represented an independent protective factor for severe IBS- symptoms (OR 0.39, 95% CI 0.18-0.87; p=0.02).

CONCLUSION: In comparison with a pre-pandemic period, there was a significant improvement in IBS-severity symptoms, anxiety and somatization during the SARS CoV-2 pandemic and mandatory lockdown. Lesser exposure to external stress burden during lockdown could have been involved in a better control of affecting gut-brain axis factors.

Variable	PRE LOCKDOWN (N=129)	DURING LOCKDOWN (N=129)	ABSOLUTE DIFFERENCE (IC 95%)	P
BDI SOBRIETY SCALE V1 (S)	276.94 (1.864)	272.96 (1.1173)	-39.70 (18.45-41.58)	0.000*
BDI-6 (S)	34 (11.00)	30 (9.69)		
ROCKWELL (S)	30 (8.26)	32 (9.63)		
WELLS (S)	40 (10.91)	39 (9.91)		
WELLS SCALE (DS)	7.19 (7)	7.14 (3)	-2 (1-2)	0.000*
LAST SCHEDULE (S)	4 (1.0)	4 (1.0)	-1 (1-1)	0.000*
LAST PAIN (DS)	3 (1-4)	3 (1-4)	-1 (1-1)	0.000*
LAST ST (DS)	4 (1-4)	3 (1-4)	-1 (1-1)	0.000*
<b>PSYCHOLOGICAL FACTORS</b>				
CORONAVIRUS ANXIETY SCALE (DS)	7 (3-8)	7 (3-8)		
ANXIETY V1 (S)	34.91 (1.437)	8.52 (1.434)	-1.09 (2.48-4.73)	0.000*
NO ANXIETY (S)	20 (15.3)	47 (16.43)		
DISORDER ANXIETY (S)	33 (20.4)	37 (16.8)		
ANXIETY (S)	71 (25.0)	45 (14.8)		
DEPRESSION V1 (S)	7.6 (1.58)	7.6 (1.44)	0.24 (1.03-1.62)	0.33*
NO DEPRESSION (S)	44 (14.1)	39 (12.8)		
DISORDER DEPRESSION (S)	33 (20.4)	40 (17.8)		
DEPRESSION (S)	47 (16.4)	31 (12.5)		
DEPRESSION V1 (S)	12.97 (1.532)	15.34 (1.543)	-1.80 (1.78-4.84)	0.000*
PROCESSED STRESS SCALE (DS)	28 (13.3)	28 (13.3)		

\* Fisher's Test, \*\* McNemar Test, † Sign Rank Test



## DISCLOSURE

The following authors have completed their 2021 DDW disclosure: Maria Piskorz: Disclosure completed | Juan Stefanolo: Disclosure completed | Agustin Ibañez: Disclosure completed | Eugenia Hesse: Disclosure completed | Gladys Bravo Velez: Disclosure completed | Adriana Tevez: Disclosure completed | Cielo Gutierrez: Disclosure completed | Tatiana Uehara: Disclosure completed | HARUMI HASHIMOTO: Disclosure completed | Juan Sorda: Disclosure completed | Jorge Olmos: Disclosure completed

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