

# COVID-19 Pandemic on Psychological Status in IBD Patients

Subjects: [Gastroenterology & Hepatology](#)

Contributor: Yu Nishida , Shuhei Hosomi , Yumie Kobayashi , Rieko Nakata , Masaki Ominami , Yuji Nadatani , Shusei Fukunaga , Koji Otani , Fumio Tanaka , Yasuaki Nagami , Koichi Taira , Noriko Kamata , Yasuhiro Fujiwara

The coronavirus disease (COVID-19) pandemic has had a considerable impact on the global healthcare system and potentially the clinical course of patients with inflammatory bowel disease (IBD). Although IBD is a chronic disease, its therapy (except steroid therapy) does not increase the risk of contracting or aggravating COVID-19.

inflammatory bowel disease

coronavirus

pandemic

lifestyle

physical activity

## 1. Mental Health in Patients with IBD in COVID-19 Pandemic Era

The COVID-19 pandemic affected mental health conditions owing to social restrictions and fear of infection, including depression and anxiety <sup>[1]</sup>. The isolation measures created to prevent COVID-19 contraction inflicts stress upon these patients and may cause increased depressive symptoms. Patients with IBD, particularly those with active disease, are more likely to develop anxiety or depression than healthy people, even during the non-pandemic era <sup>[2][3]</sup>. Furthermore, these patients need regular hospital visits to prevent recurrence, and the mental epidemic burden on them is considered greater than that in the general population. This is because patients with IBD may fear contracting COVID-19 during hospital visits or worry about the difficulty of visiting the hospital due to pandemic restrictions. Several studies have reported negative effects of the pandemic on the psychological status of patients with IBD. Trindade et al. reported that approximately half of their study population presented with moderate (37.10%) to severe (14.50%) anxiety <sup>[4]</sup>. Feitosa et al. reported that patients developed depressed mood (80.2%), anxiety and fear of death (58.2%), insomnia (51.4%), daily activity disturbances (48%), sexual dysfunction (46.2%), and productivity disorders (44%) <sup>[5]</sup>. Patients were concerned about infection risks due to hospital visits and that their illness or IBD medication may increase their COVID-19 susceptibility <sup>[4][6][7][8]</sup>. D'Amico et al.'s study revealed that 85% of patients with IBD were anxious about the risk of developing COVID-19, and 64% believed that immunotherapy was associated with a greater infection risk <sup>[9]</sup>.

## 2. Impact of the COVID-19 Pandemic on Psychological Status

Only a few studies have evaluated the impact of the pandemic on the psychosocial status of patients with IBD, comparing the pre-pandemic and pandemic periods. This may be because studies that compare mental states between these periods are difficult to design. Nishida et al. revealed that the stress of being unable to exercise and

staying indoors increased significantly during the lockdown compared with the period before the pandemic. Additionally, increased stress due to the COVID-19 pandemic was identified as an independent UC exacerbation risk factor [10][11]. Harris et al. reported that lockdowns increased the stress levels of patients, and this stress persisted after the restrictions were eased. Additionally, they reported that patients felt even more stress in the subsequent COVID-19 wave [12]. Goodday et al. reported that the proportion of respondents who experienced stress increased. In the period before the COVID-19 pandemic, 31% (73/236) of the patients felt stressed; whereas during the COVID-19 pandemic era, this number increased to 52% (122/236) among patients with Crohn's disease [13]. However, Lubert et al. reported that 22.5% (61/271), 18% (49/271), and 14% (39/271) of the patients had moderate-to-severe depression, moderate-to-severe anxiety, or both, respectively. They concluded that these rates were similar to those of the pre-pandemic period and the general population [14]. However, no studies have reported the psychological effects of COVID-19 in patients with IBD, and this should be addressed in the future.

### 3. Factors Associated with Depression and Anxiety in Patients with IBD during the Pandemic

Several COVID-19 factors have been reported to be associated with depression and anxiety in patients with IBD during the pandemic, including their general condition, self-isolation, employment status, fear of visiting the hospital, and difficulty accessing information [4][14][15]. **Table 1** summarizes the findings on the influence of the COVID-19 pandemic on the psychological status of patients with IBD during the pandemic.

**Table 1.** Summary of the influence of the COVID-19 pandemic in patients with IBD during the pandemic.

Author	Summary of Findings	References
Trindade I.A.	An online questionnaire survey examined 128 Portuguese individuals in April 2020. Normal, mild, moderate, and severe anxiety levels were 29.80%, 18.50%, 37.10%, and 14.50%, respectively. Furthermore, normal, mild, moderate, and severe depression levels were 51.60%, 27.40%, 16.10%, and 4.8%, respectively.	[4]
Feitosa M.R.	A questionnaire survey using telephonic consultations examined 179 patients in Brazil. Patients developed depressed moods (80.2%), anxiety and fear of death (58.2%), insomnia (51.4%), daily activity disturbances (48%), sexual dysfunction (46.2%), and productivity disorders (44%). No significant differences were noted between active and inactive diseases for patients with Crohn's disease and ulcerative colitis.	[5]
Grunert P.C.	An anonymous questionnaire survey examining 415 patients with IBD and 116 control participants in Germany between 2 and 17 April 2020. Compared to control participants, patients with IBD were more afraid of contracting COVID-19 ( $p = 0.009$ ) and were more concerned about the negative drug effects on COVID-19.	[6]
Nakase H.	A questionnaire survey examining 3032 patients with IBD in Japan between March 2020 and June 2021. Participants demonstrated an increased trend of anxiety a month after the number of infected people per population increased. Women,	[7]

Author	Summary of Findings	References
	homemakers, hospital arrival time from home, commuting to the hospital by train, and IBD medication were identified as significant anxiety factors.	
D'Amico F.	A questionnaire survey examining 3815 patients with IBD in 51 countries between 30 March and 16 April 2020. Findings revealed that 85% of the patients feared contracting COVID-19, 87% of the patients were afraid of traveling, and 74% of the patients were afraid of attending their hospital for follow-up consultations.	[9]
Nishida Y.	A questionnaire survey examining 451 patients with IBD in Japan from 16 June to 21 August 2020. Increased stress due to the COVID-19 pandemic was identified as an independent UC exacerbation risk factor (OR, 6.06; 95% CI, 1.79–20.50; $p < 0.01$ )	[11]
Nishida Y.	A questionnaire survey examining 451 patients with IBD in Japan from 16 June to 21 August 2020. Stress associated with being unable to exercise and having to stay indoors increased significantly during the lockdown compared to that before.	[10]
Harris R.J.	A questionnaire survey examining 685 patients with IBD in the UK from 16 June to 21 August 2020. During this period, 14.9% of the patients had anxiety or depression as comorbidities. Lockdowns increased patient stress levels, which persisted after restrictions eased. Furthermore, patients experienced more stress with the subsequent COVID-19 wave.	[12]
Goodday S.M.	An anonymous survey was distributed to 243 patients with Crohn's disease in England between 30 April and 26 June 2020. Among patients with Crohn's disease, 31% (73/236) felt stressed during the pre-COVID-19 pandemic era, while 52% (122/236) felt stressed during the pandemic. Furthermore, 17% of the patients with Crohn's disease transitioned from an inactive to an active phase during the pandemic. Increased stress was the most common reason for these symptom exacerbations.	[13]
Luber R.P.	A questionnaire survey was distributed to 271 patients with IBD in the United Kingdom in June 2020. There were 22.5% (61/271) patients with moderate-to-severe depression, 18% (49/271) had moderate-to-severe anxiety, and 14% (39/271) had both. This study concluded that these rates were similar to those in the pre-pandemic period and general population. Several factors are reported to be associated with depression or anxiety in patients with IBD during the pandemic era, including fatigue, patient suspicion of a flare, using a psychological intervention, and difficulty accessing risk information.	[14]

at

## the Beginning and at the End of the Pandemic

Sempere et al. [16] reported that after lockdown, anxiety and depression improved markedly. During lockdown, comorbidity, active IBD, use of biologics, and living alone or with one person were identified as risk factors for COVID-19, coronavirus disease; CI, confidence interval; IBD, inflammatory bowel disease; OR, odds ratio. depression symptom. This suggested that patients may not have received proper care from the healthcare system due to the lockdown or they may have lacked social support during the lockdown. However, after lockdown, factors associated with depression were those commonly found in patients with IBD, such as the disease activity of IBD or previous mood and/or anxiety disorders. This suggests that many participants' conditions improved toward the end of the lockdown. It is believed that the impact of the pandemic on psychosocial behavior will not be as great at the end of the pandemic compared with the early stages.

Providing appropriate therapy to avoid disease flares as well as sufficient and appropriate information regarding COVID-19 is important to protect patients with IBD from mental disorders during the pandemic. Easy access to

information regarding COVID-19 risks may help reduce the psychological burden.

In the future, even as COVID-19 becomes a common infectious disease, easily obtaining appropriate information related to this disease may help reduce mental burden. Additionally, this could provide a necessary lesson for future waves of infections, variants, and epidemics.

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