

Challenges faced by celiac disease patients during the COVID-19 pandemic

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(Please cite as: **Shojaei Cherati F, Kamali F, Kiani E. Challenges faced by celiac disease patients during the Covid-19 pandemic. Gastroenterol Hepatol Bed Bench 2023;16(2):110-111. <https://doi.org/10.22037/ghfbb.v16i2.2739>**).

Severe acute respiratory syndrome coronavirus type 2 (SARS-CoV-2) that first appeared in humans caused global coronavirus disease pandemic (COVID-19). The highly contagious viral infection known as COVID-19 first surfaced in Wuhan, China, which has spread worldwide. Numerous studies showed that human-to-human transmission quickly spreads, but the origin, and method of transmission before the transfer to humans are unknown (1). Multiple countries have implemented significant public health measures, such as physical separation, the suspension of public transportation, curfews, and even lockdowns, to reduce the transmissions, and flatten the curve of infections.

As a result of the enforced restrictions and unusual circumstances, the majority of people became socially isolated, resulting in physical and mental health problems for the general public (2). These precautions restricted people's access to marketplaces and businesses which provided food, as well as to typical medical appointments (3, 4). Patients with chronic conditions such as celiac disease (CeD) were limited in order to prevent congestion in healthcare institutions (5). The continuity of care for the patients with chronic disorders, particularly those with celiac disease (CeD),

was affected by such limitations (5). Celiac disease is an autoimmune enteropathy which affects those who have a genetic predisposition to it. It is caused by gluten protein present in grains like rye, barley, and wheat. There are 40 percent of us suffering from gastrointestinal disorders (GI), and celiac disease affects approximately 1.4% of us (6, 7).

The findings on quality of life (QoL) changes brought on by COVID-19 pandemic in celiac cohorts have been conflicting, and they have presented several difficulties (8). One of the most important of these is food insecurity at home. A financial, and social scenario known as "household food insecurity" occurs when there is insufficient or irregular access to food (9). Since gluten-free diet (GFD) is the sole therapy for the celiac disease, more research into how availability, and cost affect dietary adherence is necessary (10). In order to ensure optimal nutrition and development, celiac patients must avoid certain foods from their diets and make costly substitutes for them (11). GFD should be followed to manage the illness (12). Because the availability of gluten-free (GF) food is one of the most important factors that determines how well people stick to GFD, and the quality of their diets, maintaining this diet is always difficult, and the patients often feel anxious, and alone (13). Those who suffer from the disease often voice concerns about the effect of lockdown measures connected to the epidemic on the access to gluten-free food goods (14). Celiac disease

Received: 28 January 2023 Accepted: 04 April 2023

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sufferers often control their condition by eating cereals that don't contain wheat or barley or buying gluten-free flour. Despite high expense of importing many certified GF foods into wealthy, and poor nations (13, 14), celiac disease patients' everyday lives are probably made more difficult by this added financial burden (10).

A limited percentage of the patients frequently eat GF cuisine. Many patients were unable to get basic necessities due to GF diet when an extremely unexpected lockdown was imposed. Since GF food distribution, importation, and production were all negatively impacted. On the other hand, the patients should get routine medical attention from a doctor to monitor their dietary compliance, and symptoms. In order to achieve dietary compliance in CeD, patient education, ongoing doctor supervision, and regular nutritional counseling by a qualified dietician are crucial. Providing healthcare remotely through telemedicine could be useful for monitoring and providing healthcare to CeD patients in quarantine or during lockdown (15, 16). Today, video consultations such as nutritional counseling, among other fields, may still provide a strong platform to help patients in crisis situations. Despite the COVID-19 epidemic seemingly dying down, there is still a wealth of knowledge and information gathered over the past two years, important life lessons to be examined, and implications for the future. In the patients with gluten-related disorders (GRD) who should continue therapy with a gluten-free diet, the implications of protracted isolation measures on the clinical state of illnesses, access to food, and mental health are particularly significant after experiencing the pandemic effects until 2020 (GFD).

Conflict of interests

The authors declared no conflict of interest.

References

- Morina N, Kip A, Hoppen TH, Priebe S, Meyer T. Potential impact of physical distancing on physical and mental health: a rapid narrative umbrella review of meta-analyses on the link between social connection and health. *BMJ Open* 2021;11:042335.
- Monzani A, Lionetti E, Felici E, Fransos L, Azzolina D, Rabbone I, et al. Adherence to the gluten-free diet during the lockdown for COVID-19 pandemic: a web-based survey of Italian subjects with celiac disease. *Nutrients* 2020;12:3467.
- Siniscaletti M, Zingone F, Savarino EV, D'Odorico A, Ciacci C. COVID-19 pandemic perception in adults with celiac disease: an impulse to implement the use of telemedicine. *Dig Liver Dis* 2020;52:1071-1075.
- Kreutz JM, Heynen L, Arayess L, Vreugdenhil ACE. Celiac disease and the gluten free diet during the COVID-19 pandemic: experiences of children and parents. *Medicina* 2023;59:425.
- Canova C, Rosato I, Marsilio I, Valiante F, Zorzetto V, Cataudella G, et al. Quality of life and psychological disorders in coeliac disease: a prospective multicentre study. *Nutrients* 2021;13:3233.
- Imrei M, Németh D, Szakács Z, Hegyi P, Kiss S, Alizadeh H, et al. Increased prevalence of celiac disease in patients with cystic fibrosis: a systematic review and meta-analysis. *J Pers Med* 2021;11:859.
- Peery AF, Crockett SD, Murphy CC, Lund JL, Dellon ES, Williams JL, et al. Burden and cost of gastrointestinal, liver, and pancreatic diseases in the United States: update 2018. *Gastroenterology* 2019;156:254-272.
- Marsilio I, Canova C, D'Odorico A, Ghisa M, Zingone L, Lorenzon G, et al. Quality-of-Life evaluation in coeliac patients on a gluten-free diet. *Nutrients* 2020;12:2981.
- Guillaume JD, Jagai JS, Makelarski JA, Abramssohn EM, Lindau ST, Verma R, et al. COVID-19-related food insecurity among households with dietary restrictions: a national survey. *J Allergy Clin Immunol Pract* 2021;9:3323-3330.
- Lee AR, Wolf RL, Lebwolh B, Ciaccio EJ, Green PHR. Persistent economic burden of the gluten free diet. *Nutrients* 2019;11:399.
- Gasbarrini G, Dionisi T, Corazza GR, Aronico N, Cammarota G, Ianiro G, et al. COVID-19 in celiac disease: a multicentric retrospective cohort study. *Eur Rev Med Pharmacol Sci* 2021;25:4400-4404.
- See JA, Kaukinen K, Makharia GK, Gibson PR, Murray JA. Practical insights into gluten-free diets. *Nat Rev Gastroenterol Hepatol* 2015;12:580-591.
- Di Nardo G, Villa MP, Conti L, Ranucci G, Pacchiarotti C, Principessa L, et al. Nutritional deficiencies in children with celiac disease resulting from a gluten-free diet: a systematic review. *Nutrients* 2019;11:1588.
- Schiepatti A, Alimenti E, Maimaris S, Nicolardi ML, Manzella La Barbera F, et al. Prevalence, incidence and clinical features of SARS-CoV-2 infection in adult coeliac patients. *Eur J Gastroenterol Hepatol* 2021;33:1361-1366.
- Geenhalgh T, Wherton J, Shaw S, Morrison C. Video consultations for covid-19: an opportunity in a crisis. *BMJ* 2020;368:998.
- Hollander JE, Carr BG. Virtually perfect? Telemedicine for COVID-19. *N Engl J Med* 2020;382:1679-1681.