Effect of COVID-19 on Colorectal Screening and Detection in Vulnerable **Communities: Challenges and Solutions**

Salman Khazaei¹⁰, Ensiyeh Jenabi^{2*0}, Seyed Saman Talebi³

¹Research Center for Health Sciences, Hamadan University of Medical Sciences, Hamadan, Iran ²Autism Spectrum Disorders Research Center, Hamadan University of Medical Sciences, Hamadan, Iran ³Faculty of Medicine, Hamadan University of Medical Sciences, Hamadan, Iran

Dear Editor;

Screening for colorectal cancer (CRC) is a cost-effective approach to the detection of CRC at an early stage and prevents deaths from cancer. Despite the undeniable benefits of CRC screening, noticeably eligible individuals do not welcome screening programs. Results of the study in the US in 2018 indicated nearly one-third of adults ages 50-75 years did not participate in CRC screening (1). Several screening programs are available for early diagnosis of CRC including guaiac-based fecal occult blood tests, flexible sigmoidoscopy, fecal immunochemical tests, screening colonoscopies, multitarget stool DNA tests, and computed tomography (CT) colonography. However, there is no evidence that one method is more effective than other methods for reducing CRC-related mortality or incidence (2).

The onset of the COVID-19 pandemic worldwide, in addition to its direct impact on the respiratory system, and other organs (3,4) has indirectly increased the burden of other diseases through delays in their screening and care. For example, regarding CRC screening delays over

4-6 months can significantly increase advanced CRC cases, as well as their mortality rate if lasting beyond 12 months (5). Results of the study in the US showed that the COVID-19 pandemic caused the cancer screening for CRC to diminish by 24.98% and this reduction in screenings can contribute to a rise of 19.72% for CRC as well as a rise in the number of CRC-related death (6).

Some factors such as low income, and lack of insurance are barriers to cancer screening in minorities. In addition, the prevalence of some risk factors of CRC such as tobacco and alcohol use in these populations is higher (7). The effect of ethnic disparity in the COVID-19 worse outcome has been shown previously. For example, the rate of COVID-19 and mortality in the US, Black, Hispanic, and AIAN subjects are higher compared with White people (8). Undertaking manual jobs where telecommuting is not possible, overcrowding living status, transportation by public transport, differences in vaccination coverage, and lower access to medical care for people of color can justify these differences (9). Modeling studies indicate that a 12-month delay in CRC diagnosis increases death

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*Corresponding author: Ensiveh Jenabi, PhD Autism Spectrum Disorders Research Center, Hamadan University of Medical Sciences, Hamadan, Iran Email: en.jenabi@yahoo.com

Received: 30 Jul. 2022 Edited: 11 Nov. 2022 Accepted: 12 Nov. 2022 rates by approximately 16% in the 5 years after diagnosis.

COVID-19 has disproportionately affected vulnerable and minority populations. These populations usually cancel or postpone their CRC screening due to low uptake of the benefits of screening and fear of exposure to the virus at medical facilities (10). Moreover, the effects of lock-down policies and travel restrictions, are more associated with the loss of a job or getting sick, which in turn is associated with a decrease in family income, all undeniably exacerbating the ability to seek and obtain screening programs.

It is suggested that using non-invasive approaches to screening that patients perform at home, saves resources, prevents COVID-19 transmission, and increases the patients' enthusiasm to participate in screening. For example, for CRC screening, some stool-based screening at-home tests can be comparable to other tests done in the medical setting. Reducing disparities in CRC screening rates between populations in regards to accessibility and out-of-pocket payment amount is another strategy to maximize people's productivity, especially in a lowresource setting for CRC screening programs during the COVID-19 pandemic (10,11).

AUTHOR'S CONTRIBUTION

S.K. and E.J. wrote the main manuscript text. All authors reviewed the manuscript.

CONFLICT OF INTEREST

The authors declare no conflict of interest related to this work.

DATA AVAILABILITY

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