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## **International Journal of General Medicine**

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ORIGINAL RESEARCH

## Isolation Compliance and Associated Factors Among COVID-19 Patients in North-West Iran: A Cross-Sectional Study

This article was published in the following Dove Press journal: International Journal of General Medicine

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**Introduction:** Coronavirus disease 2019 (COVID-19) has now turned into a public health emergency. Isolation of patients is a possible solution for controlling epidemic infectious diseases. We assessed the compliance of isolation and associated factors among patients with COVID-19.

**Methods:** This cross-sectional study was conducted on 320 COVID-19 patients discharged from hospitals of Qazvin province. Patients' isolation, self-care health behaviors, reference to public health services and possible related factors were assessed. Data were analyzed using multiple logistic regression.

**Results:** In this study, 320 patients were enrolled, including 175 men (54.7%). Two hundred and eighty-six patients (89.4%) had complete isolation. Factors such as phone tracking by health center (OR = 1.30; 95% CI: 1.01 to 1.75) and dry cough (OR = 2.36; 95% CI: 1.09 to 5.09) increased odds of complete isolation in COVID-19 patients, but having a COVID-19 patient in the family (OR = 0.32; 95% CI: 0.15 to 0.71) and symptoms of disease like shortness of breath (OR = 0.39; 95% CI: 0.18 to 0.85) and muscle pain (OR = 0.43; 95% CI: 0.20 to 0.95) decreased odds ratio for these patients.

**Conclusion:** Phone tracking by the health center was the most important factor to increase the odds of patient isolation. Thus, the health system should consider improving health workers' knowledge and skills through education.

Keywords: COVID-19, isolation, self-care, compliance, Iran

## Introduction

In early December 2019, the first case of coronavirus disease 2019 (COVID-19) was reported in Wuhan city, which is the capital of Hubei province in China. After that, the virus quickly became a pandemic disease of undefined origin.<sup>1</sup> Although coronaviruses have been mostly reported in animals, other types of coronavirus have caused pandemics of severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) in the world within the past two decades.<sup>2–8</sup> The mortality rates of SARS and MERS were respectively reported at 10% and 37%, which are higher in comparison to COVID-19.<sup>9,10</sup>

Symptoms of COVID-19 in 80% of infected people are mild, and common symptoms include, fever, dry cough and shortness of breath. Studies have reported that older age and chronic diseases such as cardiovascular disease, hypertension, diabetes, chronic respiratory disease, and cancer were all associated with mortality rates of COVID-19.

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