

Evaluation and comparison of healthy behaviours and consequences of COVID-19 disease in women in Ardabil province: A case-control study

Abstract

Background: Women are among the susceptible groups to Coronavirus disease-19 (COVID-19) in Ardabil, north-west of Iran. The incidence and fatality rate of COVID-19 in Ardabil, unlike other parts of Iran and the world, was significantly higher in women than men. The underlying causes of high incidence and fatality rate of women in Ardabil are not fully understood.

Aim: This study aimed to investigate the healthy behaviours in women of Ardabil and its relationship with COVID-19 infection.

Materials and Methods: We conducted a case-control study to compare the adherence to health protocols and behaviours with respect to COVID-19 between the infected (261 patients) and healthy (517 persons) women. Health protocols and behaviours such as using mask, gloves, disinfectants, history of travelling and contacting, and attending various gatherings and places during the COVID-19 pandemic along with demographic variables were defined as independent variables, and COVID-19 death rate was defined as the dependent variable. Univariable and multivariable logistic regression methods were used to explore the risk factors associated with COVID-19 mortality.

Results: Chi-square and Fisher tests showed a significant difference between infected and healthy women in terms of history of contact and traveling ($p < 0.05$), wearing mask ($p < 0.001$), going to work place ($p < 0.001$), and attend public gatherings ($p = 0.038$). Multivariable logistic regression disclosed that the age group over 80 years: 8.97 times (95% CI: 2.27 to 29.85), women with underlying chronic diseases: 4.14 times (95% CI: 1.61 to 10.64), and obese women: 3.01 times (95% CI: 1.04 to 6.03) were more likely to die from COVID-19 than other women.

Conclusion: In general, it can be said that the high mortality rate of Covid-19 in women in Ardabil province is due to the higher average age, the prevalence of obesity, underlying diseases and non-compliance with protective measures and health behaviors. The most important issue in this regard can be the non-observance of health behaviors, especially participation in gatherings such as celebrations and funerals due to cultural issues in Ardabil province.

Keywords: Woman health, COVID-19, Mortality, Health protocols, Behaviours.