



DIETARY PREFERENCES DURING HOME QUARANTINE/ ISOLATION FOR COVID-19 AMONG URBAN POPULATION OF ROHTAK, HARYANA

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ABSTRACT

Isolation is recommended for COVID-19 cases and their contacts are advised home quarantine. This study was planned to assess the dietary preferences during home quarantine/ isolation for COVID-19 among urban population of Rohtak, Haryana.

A cross-sectional survey was conducted among 65 persons on home isolation or quarantine in urban field practice areas attached to the Department of Community Medicine of a tertiary care centre of Rohtak. A semi-structured interview schedule was used to obtain information from the subjects through house to house visit. Data were analysed using Microsoft Excel version 2010 and Statistical Package for Social Sciences ver.24.

Dietary modifications were done by 75.4% subjects and immunity boosters were taken by 86.2% respondents during home quarantine or isolation. About one-third (32.3%) of respondents increased intake of fruits, vegetables and fluids like juice, lemon water, coconut water, etc. Turmeric milk was used by 16.9% subjects. Herbal decoction was used by almost two-third (66.2%) of the subjects followed by Giloy- plant product (21.5%), Vitamin C tablets (16.9%), holy basil tea (9.2%) and tablets provided by AYUSH department (3.1%). Information, education and communication activities need to be further strengthened to improve dietary and immunity boosting practices followed during home quarantine/ isolation.

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INTRODUCTION

Since its outbreak in China in December 2019, corona virus disease 2019 (COVID-19) has affected 29,598,820 people taking a toll of 935, 591 lives worldwide till September 16, 2020 [1]. On 30th January 2020, the World Health Organization (WHO) declared this outbreak a Public Health Emergency of International Concern [2]. About 114 countries were affected by March 11, 2020, when WHO declared this disease “a pandemic” [3].

COVID-19 presents mainly with fever, cough and difficulty in breathing. It spreads from person to person through droplets from nose or mouth. [4]

The pandemic has led many public health agencies to take drastic mitigation measures, including community-wide lockdown, home quarantine, isolation and the prohibition of social gatherings, to stop the spread of COVID-19.

WHO and the Centers for Disease Control and Prevention advise people infected with or exposed to COVID-19 to isolate or quarantine at home in a separate room if possible [5,6]. Quarantine is “the restriction of activities and/or separation from others of suspect persons who are not ill in such a manner as to prevent the possible spread of infection or contamination.” [7] Isolation means the separation of infected persons from others to prevent the spread of the virus [5].

Nutrition is a crucial factor in modulating immune homeostasis. Ministry of AYUSH in India has issued guidelines for boosting immunity with special reference to respiratory health. These include intake of hot water, herbal decoction, turmeric milk, etc. [8]. Moreover, the Food Safety and Standards Authority of India (FSSAI) has also issued food hygiene, safety and nutrition guidelines to prevent the spread of COVID-19 [9]. Empirical evidence concerning changes in diet among people as a result of the pandemic remains largely unexplored. Hence, this study was planned to assess the

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dietary preferences during home quarantine/ isolation for COVID-19 among urban population of Rohtak, Haryana.

MATERIALS AND METHOD

A cross-sectional survey was conducted among 65 persons on home isolation or quarantine from 1st to 31st August, 2020 in urban field practice areas attached to the Department of Community Medicine of a tertiary care centre of Rohtak.

A semi-structured interview schedule, consisting of identification, socio-demographic details and questions related to dietary preferences during home quarantine and isolation period, was used to obtain information from the study participants through house to house visit. Only one participant was interviewed from each house.

The purpose of the study was explained to each participant and informed consent was obtained. Personal protective measures were used and social distancing was maintained while interviewing the subjects.

Inclusion criteria: i) Those available at the time of home visit ii) Those willing to give informed consent.

Statistical analysis: Data analysis was done using Microsoft Excel version 2010 and Statistical Package for Social Sciences ver.24. The results were expressed as proportions.

RESULTS

Out of the study participants, 75.4% were contacts on home quarantine and 24.6% mild cases on home isolation. The mean age of subjects was 41.7 ± 14.8 years. 33.8% were males and 66.2% were females. 86.2% participants were asymptomatic and 13.8% had mild symptoms.

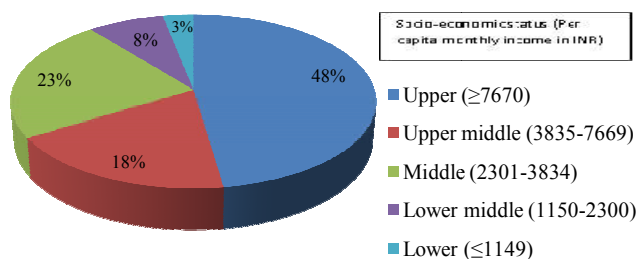


Figure 1 Pie chart showing distribution of subjects according to socio-economic status (Modified B.G. Prasad Classification July 2020)

Figure 1 shows that 47.7% subjects belonged to Upper class followed by middle class (23.1%).

History of contact with COVID-19 case was given by 95.4% respondents.

About three-fourth (75.4%) of the subjects modified their diet during home quarantine or isolation.

Table 1 Distribution of study subjects according to dietary preferences

Dietary preferences*	Frequency (N=65)	Percentage (%)
More fruits and vegetables	21	32.3
More fluids (juice, lemon water, coconut water)	21	32.3
Turmeric milk	11	16.9
Hot water	4	6.2
Avoided junk food	3	4.6
More protein	3	4.6

*multiple responses

As observed in table 1, about one-third (32.3%) of the respondents increased intake of fruits, vegetables and fluids like juice, lemon water, coconut water, etc. Turmeric milk was used by 16.9% subjects.

Immunity boosters were taken by 86.2% respondents. Of these, 80.4% subjects bought it themselves, whereas, 19.6% received it from the government.

Table 2 Distribution of participants according to use of different immunity boosters

Type of immunity booster*	Frequency (N=65)	Percentage (%)
Herbal decoction	43	66.2
Giloy (plant product)	14	21.5
Vitamin C tablets	11	16.9
Holy basil tea	6	9.2
Ayurvedic tablets	2	3.1

*multiple responses

As depicted in table 2, herbal decoction was used by almost two-third (66.2%) of the subjects followed by Giloy- plant product (21.5%), Vitamin C tablets (16.9%), holy basil tea (9.2%) and tablets provided by AYUSH department (3.1%).

DISCUSSION

The present study assessed the dietary modifications and immunity boosting practices among 65 persons on home quarantine or isolation in urban Rohtak. Out of these, 75.4% were contacts on home quarantine and 24.6% mild cases on home isolation.

About three-fourth (75.4%) of the subjects modified their diet during home quarantine or isolation in this study. However, Wang et al (2020) in a Chinese study reported that 23% of adults changed their diets to be healthier. The participants were found to have focused more on their eating quality and patterns, which had a positive influence on their quality of life [10].

In the present study, about one-third (32.3%) of the respondents had increased intake of fruits and vegetables during home quarantine or isolation. Similar findings were observed by Wang et al (2020) where 30% subjects reported consuming more vegetables, fruits and milk products than before home isolation [10].

The study showed that 4.6% of the participants avoided junk food. While, Wang et al (2020) in their study reported that 30% subjects had increased eating of snacks [10]. Similarly, Ammar et al (2020) reported in an international survey that 10.9% respondents were always consuming unhealthy food during home confinement [11].

In the current study, 32.3% subjects took more oral fluids like juice, coconut water, lemon water, etc. Hydration plays a major role in monitoring body temperature. Staying hydrated enables to transmit nutrients to all parts of the body and helps to maintain all body functions [12].

It was observed that 4.6% subjects increased protein intake. Proteins play a role in the body's healing and recovery [9]. Foods rich in proteins, glucose, vitamin C and D are recommended for faster recovery from viral infections [13].

Immunity boosters were taken by 86.2% respondents. Immune boosters possess antiviral activity which helps to fight infections [9]. Vitamin C tablets were consumed by 16.9%

subjects. Vitamin C aids the body as a prooxidant for immune cells and antioxidant for lung epithelial cells [14].

Balanced nutrition can help in maintaining immunity essential for prevention and management of viral infections [15].

CONCLUSION

Dietary modifications were done by 75.4% subjects and immunity boosters were taken by 86.2% respondents during home quarantine or isolation. Information, education and communication activities need to be further strengthened to improve dietary and immunity boosting practices followed during home quarantine/ isolation.

Enhancing the body's natural defence system may play an important role in maintaining optimum health during any pandemic.

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