

Original Research Article

Facts and prevailing myths on COVID-19 among the general public, India: a cross-sectional survey

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ABSTRACT

Background: COVID-19 is not a new disease for this world, but it shows alarming effects globally, and its sudden increase in incidence and spread is causing misperception and fear among the general population. The aim of this study was to assess the myths about COVID-19 among the general public, India.

Methods: Cross-sectional survey was conducted using a convenient sampling technique to assess the myths on COVID-19 among 367 general public, India. The material used to collect the data was sociodemographic proforma and a structured questionnaire with 20 dichotomous questions with 'Yes' or 'No' option covering the transmission treatment and prevention myths on COVID-19. Data were collected through an online platform using Google forms and analyzed using R software.

Results: The study identified six top myths on COVID-19. Taking a hot bath prevents coronavirus infection (93.5%), thermal scanners detects COVID-19 infections (40.3%), prolonged use of face mask prevents COVID-19 air entry (42.5%), houseflies transmit COVID-19 disease from one person to other (33.8%), mosquito bite transmits coronavirus (32.4%), and only older people and children are more susceptible to COVID-19 (30.8%).

Conclusions: Myths were existed regarding COVID-19 due to lack of awareness. Awareness activities and strategies should be encouraged to reach all possible communication mean to erase the emerging myths. Besides, awareness should be enhanced by mass media or another portal in-order to follow the evidence-based preventive practices, including social distancing, cough and mask etiquette, hand hygiene, and other infection control measures to protect everyone from infection.

Keywords: Myths, COVID-19, General public, India

INTRODUCTION

The COVID-19 is a dreadful respiratory infectious disease that has rapidly spread worldwide. It is not a new disease for this World, but it shows alarming effects globally, and its sudden increase in incidence and spread causing misperception and fear among the general population. Due to the rapid rise in the number of confirmed cases of COVID-19 and deaths per day across the World, the health care system has been affected the most. It is expected that the morbidity and mortality associated with COVID-19

infection will increase shortly as there is no actual medication or vaccine developed to date against the virus.¹ The occurrence of an epidemic and pandemic is a periodic phenomenon, and the community faces many challenges. Lack of knowledge and misconception often leads to arousal of myths among the community. As research into COVID-19 continues, many facts about it are continuously changing and are developing many myths in the general population regarding the prevention and management of the infection. In the extensive use of social media, these myths and fake news on corona are spreading rapidly.²

There are many myths associated with the spread and cure or treatment of COVID-19 infection in society. These myths are traveling from one person to the other through social media platforms. These myths can be very dangerous, as these can lead to a reduction in actually needed practices, and following some of these myths can lead to other health hazards. Myths related to COVID-19 infection can be grouped into those related to the spread of infection, source of infection, preventive measures, and curative measures.³

Various health authorities such as the WHO, Centre for disease control and prevention (CDC), Ministry of health and family welfare (MoHFW), India had listed some of the prevailing myths to increase awareness about the infection and have provided factual information about COVID-19 in their websites.⁴⁻⁷ Even after creating awareness and providing adequate information to the general public through telecommunication such as radio, television advertisements, public health messages, distributing pamphlets or signboards at public places about infection control measures and mode of spread of the infection, still, there are a large number of myths exist among the general population. Myths influence the perceptions about health, and so that it ultimately affects the cause and cure of the health-related problems possessed the need for the study. According to WHO, there are elevated myths due to quarantine and lockdown in affected areas.⁷ The number of COVID-19 cases continues to climb every day across the World, including in India. Being the 2nd most populous country and the risk of transmission of covid-19 is very high, the researcher felt the need to assess facts and prevailing myths regarding COVID-19, especially among the general public.

METHODS

The present study adopted a quantitative approach using a cross-sectional design to assess the myths on COVID-19 among the general public by convenient sampling technique. The material used to collect the data was sociodemographic proforma and a structured questionnaire with 20 dichotomous questions with ‘Yes’ or ‘No’ option developed by the investigator.

The CVI of the tool was 0.81. The reliability of the tool was established with internal consistency (Cronbach alpha= 0.80). Ethical permission was taken from Institutional Ethics Committee (T/IM-NF/Nursing/2020/57). Data were collected through an online platform due to pandemic situations to avoid the spread of infection. An online structured questionnaire was distributed using Google forms, with a consent form added to it. Questionnaire link was sent through whatsapp, facebook, email, instagram, and other media to contact the investigator. On receiving and clicking the link, the participants got auto directed to the study’s information and informed consent. Digital consent was obtained online from all the participants. After accepting to participate in the survey, participants filled up the demographic details,

followed by myths questions related to COVID-19. Total 367 responses were recorded. The collected data were coded and entered into an excel spreadsheet, and data were analyzed using R software.

RESULTS

Demographic information of the study participants

The mean age of the study participant was 36±5 years. More than half (57.2%) of the participants were female. More than three fourth (88%) of them were married. More than half (60.8%) of the participants were employed, and (68.4%) belonged to the Hindu religion. More than half (58.3%) of the participants had completed under graduation, and 19.6% were already exposed to COVID-19 infection. Nearly 68% of them mentioned that they received information on COVID-19 infection and prevention through social media (47%).

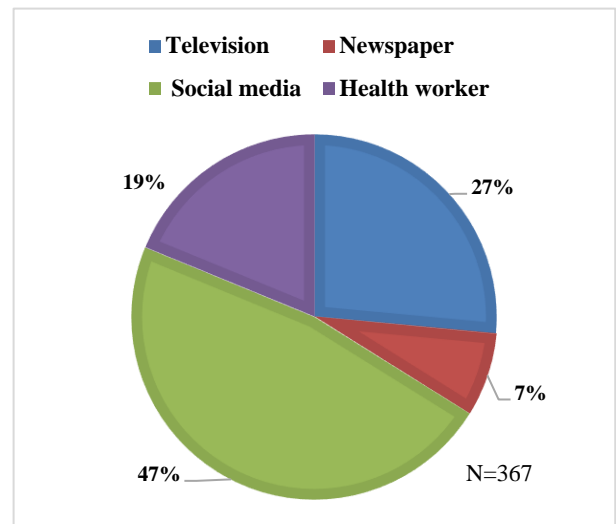


Figure 1: Distribution on the source of information received on COVID-19 by the participants.

Nearly half of the study participants (47%) mentioned that the source of information received on COVID-19 was through social media.

The study identified six topmost myths on COVID-19. Taking a hot bath prevents coronavirus infection (93.5%), thermal scanners detects COVID-19 infections (40.3%), prolonged use of face mask prevents COVID-19 air entry (42.5%), houseflies transmit COVID-19 disease from one person to other (33.8%), mosquito bite transmits coronavirus (32.4%), and Only older people and children are more susceptible to COVID-19 (30.8%).

More than three-fourths believed that holding breath >10 seconds without cough does not mean being infected with COVID-19. It was found that myths were present among the general public in various domains of COVID-19 like transmission, treatment, and prevention.

Table 1: Frequency and percentage distribution of myths on COVID-19 (N=367).

Question No.	Statements	Yes N (%)	No N (%)
1	The person infected with COVID-19 will not recover	54 (14.7)	313 (85.3)
2	Drinking alcohol protect against COVID-19	21 (5.7)	346 (94.3)
3	Thermal scanners detects COVID-19 infections	148 (40.3)	219 (59.7)
4	Prolonged use of face mask prevents COVID-19 air entry	156 (42.5)	211 (57.6)
5	Licensed drugs are available for the treatment of COVID-19 currently	89 (24.3)	278 (75.7)
6	Houseflies transmit COVID-19 disease from one person to other	124 (33.8)	243 (66.2)
7	Spraying disinfectant into the body gives protection against COVID-19	106 (28.9)	261 (71.1)
8	Sun or temperature exposure >25 degree prevent COVID-19	62 (16.9)	305 (83.1)
9	Able to hold breath ≥ 10 seconds without cough means an individual has not affected by COVID-19 infection	88 (24)	279 (76)
10	COVID-19 cannot be transmitted in hot climates	64 (17.4)	303 (82.6)
11	Vitamin C medicine prevent COVID-19	110 (30)	257 (70)
12	Taking a hot bath prevents coronavirus infection	343 (93.5)	24 (6.5)
13	Mosquito bite transmits coronavirus	119 (32.4)	248 (67.6)
14	The vaccine against pneumonia give protection from COVID-19	97 (26.4)	270 (73.6)
15	Rinsing the nose and hands with salt water is a preventive measure for COVID-19	30 (8.2)	63 (17.2)
16	Only older people and children are more susceptible to COVID-19	113 (30.8)	254 (69.2)
17	Antibiotic is effective in prevention and cure of COVID-19	10 (2.7)	357 (97.3)
18	Only non-vegetarian is susceptible to COVID-19	22 (6)	345 (94)
19	One will die if got COVID-19	76 (20.7)	291 (79.3)
20	Disinfection should be done using ultraviolet rays	72 (19.6)	295 (80.4)

DISCUSSION

Comparing myths on COVID-19 with myths related to flu, leprosy, and tuberculosis, some commonalities exist on significant themes of myths, including causation, disease transmission, and duration. However, COVID-19 infection affected globally within a short period, and social media's influence made it complicated as it is available to everyone in the World. Hence, the speed of spread of myths was breakneck and extended across the globe. Lack of potential medicine, the vaccine has led to multiple questions about various aspects of COVID-19 infection. Evidence-based research findings stated that prolonged viral shedding in feces was seen in symptomatic and recovered patients with COVID-19.⁸⁻¹⁰

More myths and stigma were prevailed on the communicability of COVID-19 by those who recovered from COVID-19 infection and health care workers working in COVID-19 wards/hospitals, and they were harassed by the general public residing in the housing complex.^{11,12} Awareness towards COVID-19 has been disseminated by WHO, CDC, and health ministry through various portals, but the public should be made aware of following appropriate and authentic websites to update their knowledge on COVID-19.⁴⁻⁷ Each individual should be encouraged to question the authenticity and degree of evidence of a publicized strategy on cause, transmission, the treatment being circulated or disseminated by any

agency or individual before be believing the facts related to COVID-19 blindly.

Besides, awareness should be enhanced by mass media or another portal in-order to follow the evidence-based preventive practices, including social distancing, cough and mask etiquette, hand hygiene, and other infection control measures to protect everyone from infection.

Awareness activities and strategies should be encouraged to reach all possible communication mean to erase the emerging myths. Taking legal action against individuals and agencies to disseminate false news and fake claims during the pandemic situation is mandatory. The media should not mislead the general public by discussing the scientific evidence related to COVID-19 infection unless and until that evidence had been proved unequivocally.

CONCLUSION

Since the time of immemorial, myths have been widely prevalent about various communicable diseases. Its cultural influence had an impact on society to various degrees. With evidence-based approaches and in due time, these myths should be proved wrong. COVID-19 pandemic and its uncertainty had risen to various myths widespread, and stigma had risen because of these myths.

Hence, organizations and health authorities should take all the possible steps to demystify the myths on COVID-19 in due time.

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