Research Article

Insight and Notion of Novel Coronavirus (nCoV-19) Among Medical and Nonmedical Person Practising and Visiting Eye Hospital of Banepa Respectively: A Pilot Cross Sectional Study

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Abstract

Aim: To assess the level of knowledge, practices and attitude among medical persons and non-medical persons practicing and visiting Eye Hospital of Banepa respectively..

Subject and methods: Affecting 213 countries as of September 25, 2020 with 32,487,622 confirmed cases and mortality of 988,962, this pandemic of Coronavirus has not only challenged the current medical practices, but also imposed a huge psychological and socio-economic burden to the entire world. This is a cross sectional, descriptive study of Banepa Residencies and medical Practitioners conducted from June 1, 2020 to June 9, 2020. A standardized questionnaire was distributed and completed by all participants during a week period of the study.

Results: The age range of the participants was 18-64 years and mean age was 36 years. More than 80% (P = 0.001) of the subject had sufficient knowledge about nCoV-19.

Conclusion: Both the groups (medical and nonmedical) in Banepa (a hilly city on the outskirts of capital city) showed a satisfactory level of knowledge and positive attitude towards nCoV-19. However, there is a noticeable difference in knowledge level between the professions from medical group whereas, gender bias knowledge gap from nonmedical subjects.

Keywords: Corona Virus; Novel Corona Virus; Covid-19; Eye

Introduction

Coronavirus are a large family of viruses coeval in people and many species including camels, cattle's, cats and bats. The seventh member of the coronavirus family, Severe Acute Respiratory Syndrome, is a *betacoronavirus* (SARS-CoV-2) and have possibly originated from bats [1]. On 12th Feb, 2020 this SARS-CoV-2 was named Novel Coronavirus (n CoV-19) due to a new strain of coronavirus that was not previously identified in humans [2]. On 31st Dec, 2019, an array of pneumonia cases were reported in Wuhan, Hubei province, China. On 9th Jan, 2020, China CDC reported a Novel Coronavirus outbreak [3]. On January 30, 2020, the International Health regulations Emergency Committee of the World Health organization declared the outbreak a "Public Health Emergency of International Concern". Affecting 213 countries as of September 25, 2020 with 32,487,622 confirmed cases and mortality of 988,962, this pandemic has not only challenged the current medical practices, but also imposed a huge psychological and socio-economic burden to the entire world [3]. Such outbreaks including the Severe Acute Respiratory Syndrome (SARS) was reported in 2002 and Middle Eastern Respiratory Syndrome (MERS) in 2012. Wuhan, Hubei province. China is considered the epicenter of nCoV-19 on 31st Dec 2019. Those infected were found some link to a large sea-

Insight and Notion of Novel Coronavirus (nCoV-19) Among Medical and Nonmedical Person Practising and Visiting Eye Hospital of Banepa Respectively: A Pilot Cross Sectional Study

27

food and live animal market, suggesting animal to person spread and with increasing number it indicates person to person spread [1]. As per a study done on clinical characteristics of Coronavirus Disease 2019 in China, the median age of the patients was 47 years and 58.1% were males with 41.9% were females. No children were reported with this case [3]. Geriatric, or immune suppressed, or patients having chronic medical conditions like heart, lung or kidney disease are more susceptible for nCoV-19 illness. Clinical presentations of nCoV-19 are fever, cough and shortness of breath, difficulty breathing, persistent pain or pressure in the chest, new confusion or inability to arouse and bluish lips or face. A study done on travelers returning to Frankfurt from Wuhan, China stated that shedding of potentially infectious virus may occur in persons who have no fever and no signs [4,5]. On such scenario, one must be precautious of their family and surrounding. So far, no specific treatment has been found to be effective to a significant extent. Therefore administering preventive measures are expected to reduce spread of this pandemic situation. The WHO and the Centre for Disease Control and Prevention (CDC) have published recommendations for the prevention of Novel Coronavirus in health care settings. These include precautions such as close contact with people, clean your hands often with soap and water for at least 20 seconds especially after blowing nose, coughing or sneezing or having been in public places. If soap or water is not available, use of a hand sanitizer that contains 70% alcohol is recommended. Avoiding touching your face, nose, and eyes frequently and if possible avoiding touching high touch surfaces in public areas (elevator buttons, door handles, handrails, etc.). Disinfect your home to remove germs (practice routinely cleaning of frequently touched surfaces such as doorknobs, tables light, switches desk, handles toilets, faucets, sinks and cell phones). First case of corona virus in Nepal was of a student studying in china, who has been visiting Nepal when diagnosed [5,6]. As soon as this news flashed out, people considered themselves at a high risk of infection. Anxiety rush inside them and this was topic of their verbal communications, media coverage, profile of Facebook page and probably the most searched topic on Google. The irony is that now with 70,614 confirmed cases people tend to ignore the social distancing rules, masks (If worn) are worn on the chin by many.459 lives have been claimed by the disease in Nepal. This pandemic has tested not only tested the government but also the mentality of the general public. This has certainly proved that most people tend to neglect the basic necessity of public health unless a family member or they themselves are effected. This study aimed to explore the insight and notion of nCoV-19 towards medical and nonmedical personalities. Despite the health authorities pleading the public to visit the hospitals for emergency care only, we have a huge number of patients daily just for regular checkup, slight itch or mild dryness. This led us pursue this study to understand the way the non-medical person visiting our hospital considers Corona virus disease. The result obtained may be useful in recommending additional interventions in the study area to improve awareness and possibly stop the dreadful outburst of cases in right time.

Methods

This cross sectional, descriptive study of Banepa Residencies and Practitioners was conducted from June 1, 2020 to June 9, 2020. Medical practitioner include Ophthalmologist, Optometrist, Ophthalmic assistants, Opticians, Nurses and Laboratory staffs. Nonmedical were those who are visiting eye hospital for their check up and hospital staffs of non-medical background. The study was conducted according to International Guidelines of Strengthening the Reporting for Observational Studies IN Epidemiology (STROBE) and WHO (8 Strobe).A standardized questionnaire was distributed and completed by all participants inside the hospital premises during a week period of the study. The self-administered questionnaire was developed with few aptitudes using the frequently asked questions from the WHO and some modifications were made to ease participants. The question was designed in American English and verbally translated into mother tongue for one with query. The questionnaire was pilot tested by medical fraternity practicing at eye hospital to determine the clarity and validity and further modification made accordingly. The questionnaire had 25 multiple choice questions representing their knowledge and attitude regarding nCoV-19. The question comprises of demographic data, etiology, incubation period, symptoms, risk group, consequence, mode of conveyance, prevention and their psychological aspects. A scoring system was kept to assess the level of knowledge and attitude of each subject. Data were coded, divided into 2 categories, validated and analyzed using SPSS, version 2. Frequencies and proportions were used to present the data. Chi-squared was used as the test significance at the 5% level.

Results

A response rate of 96% was obtained with a total of 120 subjects. The age range of the participants was 18-64 years and mean

Insight and Notion of Novel Coronavirus (nCoV-19) Among Medical and Nonmedical Person Practising and Visiting Eye Hospital of Banepa Respectively: A Pilot Cross Sectional Study

28

age was 36 years. More than two- thirds were male. The study group included 3 ophthalmologists, 7 optometrists, 28 optometry students, 7 nurses, 4 opticians and 1 laboratory staff and 52 % were from non-medical background. Surprisingly more than 80% (P = 0.001) of the subject had sufficient knowledge about nCoV-19. The main information was from the Ministry Of Health website and Social media. The majority, 89 % were aware, the disease is viral infection, and 94% knew mode of transmission and 72% with its clinical presentation. A majority of 76% shared their knowledge on immune suppressed and chronic disease patients are at higher risk of infection. However, the participants from non-medical background have poor knowledge about incubation period and specific prevention. Both groups consider mask and frequent hand wash as most preventive measure.

The knowledge gained from non-medical background was correlated with medical background. Males had statistically better knowledge than females (P = 0.002). Sufficient knowledge was significantly correlated with age between 24 to 56 years from non-medical background where as nurses and females from non-medical background shared some confused knowledge.

Over 90% of participants exhibited a positive attitude towards nCoV-19. The majority of participants knew that coronavirus could be prevented by using standard precautions and isolation from crowdie areas. Besides, 93% felt that information in Nepalese society was sufficient to deal with coronavirus.

Discussion

Currently, n-CoV-19 has been a discussion topic in the media, in the public, and in social media. The analysis of data tries to inform on awareness and attitudes towards the prevention and control of coronavirus. Our findings may be useful when planning health education programs about this disease. We stated that almost all participants have heard about coronavirus and they indicate social media as main source of their information. This indicates that the educational materials posted online social website either by authorized or personal opinion sets a great responsibility on public, aiming to improve knowledge levels, means of information validity. A finding of considerable concern is scientific content of information source as well as the possibility of misinformation should be constantly monitored by authorized one to reduce anxiety and mental status of public. The finding of this study gave a major highlight

on even and odd information about positive case in Nepal. Some paramedics practicing at Eye Hospital including females from non-medical background have perceive as a positive suspect of China return student, yet under isolation. Such myths should be removed from constantly broadcasting this information via social media, news channel and from newspapers. On aptitude question about their anxiety towards the diseases, given option of (0 being none to 10 being maximum), medical background didn't range more than 5 (P = 0.003) whereas nonmedical ranged towards maximum level of anxiety among which females and geriatric above 45 years were most. Their anxiety shows poor concentration on working areas which may harm economical and vocational consequences of their life. Such scenario can be maintained psychologically healthy by advising them proper mean of prevention.

The study broadens of people rush to buy surgical mask and sanitizer for prevention. Several studies have shown that surgical mask won't protect from illness. A video surfaced online on World Health organization page on 15th January 2020 shows effective way of using and disposing mask. One should use mask while sneezing or coughing or taking care of coronavirus infected person. The most effective kind of mask is N95 respirators. It filters out most airborne particles and prevents wearers from breathing in particles down to 0.3 microns in diameter. According to a recent article in the Lancet, coronavirus measures between .05 and .02 microns in diameter and N95 respirators lashes out at least 95% infected air droplets. Even washing hand frequently with soap (containing 90% alcohol) and water is as effective as sanitizer.

One of the scientific yet not proven statements surfacing on public arena was about sultry weather break the chain of nCoV-19 was kept in uncertain circumstances from both medical and nonmedical holders. This has been proven to be a hoax as the pandemic continues in warm climates [7].

This study had shown some recall bias and misclassification from non-medical subject about virus inception, conveyance, incubation, clinical presentation, serological testing procedures and treatment modalities from nurses, technicians and few students including non-medical from remote areas.

Our study was limited to the Banepa region of kavrepalanchowk district of Nepal, thus the results presented here may not extrapolate rest of the country citizens' opinion. The lack of detailed in-

Insight and Notion of Novel Coronavirus (nCoV-19) Among Medical and Nonmedical Person Practising and Visiting Eye Hospital of Banepa Respectively: A Pilot Cross Sectional Study

29

formation about the knowledge of paramedics and non-medical public towards nCoV-19 is a potential limitation. Therefore, carrying out further large- scale studies from other regions is important to explore awareness and positive attitude towards nCoV-19 at the national level.

Conclusion

Both the groups (medical and nonmedical) in Banepa region showed a satisfactory level of knowledge and positive attitude towards nCoV-19. However, there is a noticeable difference in knowledge level between the professions from medical group whereas, gender bias knowledge gap from nonmedical subjects. Greater educational interventions with locally adjustable methods and educational efforts about prevention contribute to improving any deficiencies in knowledge and reduce the level of anxiety about pandemic infectious diseases.

Declarations
Ethics Approval and Consent to Participate

Approved by local ethical committee, informed written consent was taken from all participants.

Consent for Publication

All authors have given the journal full rights on the manuscript.

Competing interests

None.

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None.

Availability of Data

The authors confirm that the data supporting the findings of this study are available within the article. Data can also be provided on request by the corresponding author.

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