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Knowledge, Attitudes and Practices (KAP) towards COVID-19 preventive measures in Developing Countries: A Review

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Abstract

Severe Acute Respiratory Syndrome Coronavirus 2 (COVID 19) has overwhelmed the world with about 56.7 million confirmed cases and over1.3 million deaths as of November 19th, 2020.Assessing the knowledge, attitude, and practices (KAP) of people towards COVID-19 could play a vital role in the way they take remedial actions to control its spread and their readiness to strive for and follow to care. The respondent's KAP towards COVID-19 vary by their age, level of education, marital status, occupation, residence, monthly income, and practices. Old age and patients with cancer, diabetes, hypertension, cardiac disease, chronic respiratory diseases, pregnant women and migrants from other parts of the world having COVID-19 have been identified as potential risk factors for severe complications and death.

Keywords: Coronavirus, COVID 19, KAP.

1. Introduction

The novel coronavirus also referred to as severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) causes a severe respiratory disease known as coronavirus disease 2019 (COVID-19). COVID-19 was first reported by the World Health Organization (WHO) on the 31st December 2019 and announced as a global pandemic on 11th March 2020 and the first case was reported in Wuhan, China in December 2019[1, 2, 3]. The virus has rapidly spread worldwide affecting 220 countries. As of November 19th, 2020, over 56.7 million confirmed cases and over 1.3 million deaths have been reported globally.

Several remedial actions such as closing of all private and public schools and universities, limiting of the number of travelers of public transportation and doubling the tariff, postponing national elections, closure of borders and suspension of flights, prohibiting meetings of more than 50 peoples; closing bars, restaurants, and public places , quarantine/isolation and care for infected people or suspected cases, suspension of issuance of entry visas to countries, implementation of virtual meetings, prohibiting overloading in public transport, avoiding close contact such as shaking hands or hugging and

covering the mouth when sneezing were implemented by thedifferent countries to control and curb the distribution of the ongoing COVID-19 pandemicin almost all countries [5].

Manydeveloping countries have been faced by limited infrastructure and fragile healthcare systems such as lack of adequate surveillance to assess the scope of the outbreak, and inadequate systems for the prevention, diagnosis, and management of a disease.

Assessing the level of knowledge, attitudes, and practices of the people on COVID 19 is very essential to prevent and control the spread of the disease. This adherence is highly dependent on the population's knowledge, attitudes, and practices (KAP) towards COVID-19. KAP is an important cognitive key in public health regarding health prevention and promotion. In many cases, the absence of knowledge, or if most of the medical-related beliefs are actually misconstrued or false, these may carry a potential risk [12]. In Hubei, China, one of the first studies analyzing attitudes and knowledge about COVID-19 concluded that attitudes towards government measures to contain the epidemic were highly associated with the level of knowledge about COVID-19 [13]. It was reported that higher levels of information and level of education were related with more positive attitudes towards COVID-19 preventive measures [5, 6].

Old age and patients with cancer, diabetes, hypertension, cardiac disease, chronic respiratory diseases,pregnant women and migrants from other parts of the world having COVID-19have been identified as potential risk factors for severe disease and death [5, 6]. As recommended by the WHO using face masks, washing hands with soap and water, and keeping social distancing are very important to prevent the transmission of the disease.

2. Knowledge towards COVID-19 preventive measures

According to [5] in a total of 1006 participants in Cameroon; the majority (89.14%) had knowledge towards COVID-19 preventive measures and the

age elder than 20 years old was linked with high knowledge of COVID-19.The knowledge of COVID 19 mode of transmission was adequate among the Cameroonian population. About 42% of the respondents had awareness when the disease started in the month of December 2019 and very few were alert of about the disease in March 2020 when the first case was reported in the country. The majority of the people acquired the information on COVID 19 for the first time through the Television, internet or websites, social media (Whatsapp) and face to face communication.

The majority, more than ninety percent knew that the disease is transmitted through kissing infected person, droplets when an infected person coughs sneezes or speaks, handshake, touching a contaminated surface and then touching eyes, nose or mouth.

The survey conducted in a total of 2017sample of respondents in Bangladesh, about 48.3% had more accurate knowledge towards preventive measures of COVID-19. The majority of the people knew about the incubation period of the disease is from 2 to 14 days. Srichan et al[15]shown that the socio-demographic and economic variables such as the respondents marital status, education, occupation, annual income were significantly affecting factors linked with more accurate knowledge on COVID-19, on the other hand Zhong et al shown that being male , the age group of 16 - 29 years, marital status, education, employment and being a student were significantly associated with knowledge of COVID-19[13].

More than half of the participants stated that the virus is transmitted by close contact with an infected person, during coughing, touching contaminated surfaces, very few said that contact with infected animals and by eating and drinking infected animal products such as meat and milk.The majority of the respondents reported fever, dry cough, and difficulty breathing as the common symptoms of the COVID-19[6]. Some of the problems that the participants faced during outbreak were unable to stay at home, carelessness about the severity of the disease and reluctance to use masks.

The study conducted in India to assess the KAP of young adults with type one diabetes mellitus towards COVID-19 shown that in a total sample of 212 selected respondents, the majority (74%) had an average knowledge towards COVID-19. The variables higher level of education, urban residences, and being married were linked with better knowledge scores; however, only urban residence was found to be statistically significant. The majority reported that being a patient of type one diabetes mellitus, they were at higher risk of getting infected with COVID-19. Almost all were confident about self-protection. Half percent of respondents had left home to access health facilities such as insulin, syringes and others from the pharmacy. However, all were keeping proper hand hygiene and majority were following routine dietary advice and administering prescribed insulin doses [7].

Akalu et al. (2020) found that in a total of 404 participants included in the survey, the prevalence of poor knowledge and poor practice was accounted as 33.9 % and 47.3% respectively. About 41% percent of the respondents reported that it is very difficult for them to avoid attending crowded places. The variables age, educational status of cannot read and can't write, being rural residence and monthly income were significantly linked with poor knowledge towards COVID-19[8].

The survey conducted in Nepal in a total of 766 samples of respondents, 71.5% reported that the Nepal government can successfully controlled and about 80% were confident enough that they could win the COVID 19. The majority of the respondents reported that they had not visited any crowded place which was significantly associated with age, marital status, gender, education, occupation, province of residence, and knowledge score of COVID-19 and most participants used face masks while going out which significantly differed across gender[9].

Tesfaye et al. (2020) found that all 295 respondents who participated in the survey reported that they had information about COVID-19 during the survey. Almost all of the participants were known of the causative agent,

the clinical manifestations and the mode of transmission of COVID-19.

About 92% reported that people with old age were identified as high risk groups for sever disease and death. More than half of the respondents were found to have enough knowledge about COVID-19. About 90% had a positive attitude on the importance of following WHO recommendations in reducing the transmission of COVID-19. Only a few had confidence in the capacity of healthcare facilities in the country to properly handle potential COVID-19 pandemic. Insufficient preventive measures were taken to protect the staff from COVID-19 in the institutions of 70.2% of the participants [10].

According to [11] the survey conducted in Iran the main findings shown that out of 8591 respondents included in the survey, in general about 90% had knowledge concerning COVID-19 and about 61% of the general population had adequate knowledge towards the disease. About 85% had the knowledge on the method of transmission and groups at higher risk of COVID-19. The result revealed that female gender, older age, and higher education were associated with knowledge, attitude, and practice towards COVID 19. The finding also shown that lower knowledge score was significantly affected by male gender, non-healthcare related professions, being single and lower level of education.

The study conducted in north central Nigeria by taking a total sample of 589 respondents showed that almost all respondents had good knowledge of COVID-19.The knowledge acquired mainly through the internet (social media) and Television. The result also showed there is significant relationship between knowledge of COVID-19 and attitude towards preventive measures of COVID-19[4].

3. Attitudes towards COVID-19 preventive measures

In a total of 1006 respondents, about 69% had positive attitude towards COVID-19 preventive measures in Cameroon. Of all respondents, about

seventy three percent reason out that they can be contaminated by health care workers, very few refuse to go to the hospital even if they are suffering from another disease rather than COVID 19.The reason behind they do not want to go to hospital is that they are afraid of being contaminated in the hospital with COVID-19; think the health workers can misdiagnose their disease given that many other diseases have similar symptoms. "About 72% were willing to do a voluntary test among which 47% of them chosen the house over the hospital for their medical care if tested positive.""People's preference for house medical care is because they are afraid of being contaminated in the hospital (38.6%), their families can take good care of them and they feel comfortable at home (58.1%)." In general, the researchers found that 69% of participants had a high attitude score towards hospital seeking behavior [5].

The majority (more than 90%) of the respondents reported that washing hands with water and soap, keeping social distance, avoid touching the eyes, nose with hands and more than 80% said that using a face mask , avoiding contacts with infected people are the preventive methods for COVID-19. Keeping self-quarantine and isolating the all family members are also recognized as the preventive methods of COVID-19 in Bangladesh [6].About 90% of the participants had positive attitude towards COVID 19[11].

People globally positively accepted the measures like washing hands and face when they come from outside and teaching the people plays a vital role prevention of COVID-19. Saqlain et al. also reported that more than 80% participants strongly agreed that transmission of COVID-19 could be prevented by following universal precautions given by WHO or CDC [15]. The respondent's attitudes towards COVID-19 vary by their age, level of education, marital status, occupation, family type, monthly income, and practices. The findings from China shown that the socio-demographic variables older age, higher level of education, being employed, having joint family, having higher monthly family income, and implementing more frequent practices were

affecting the positive attitudes towards COVID-19[13].

The findingin Bangladesh showed that in a total of 2017 respondents, 62.3% of respondents had more positive attitudes towards COVID-19 and their attitude is affected by older age, higher education level, employment status, higher monthly family incomeand having more frequent prevention practices[6].

4. Practices towards COVID-19 preventive measures

From 1006 sampled respondents, about 60.8% had practices towards COVID-19 preventive measures in Cameroon. Almost all respondents used face masks, more than 90% wash hands and use sanitizers, about 84% maintained social distancing, refused to go to crowded areas, and very few were confined at home. People also eat citrus fruits, take vitamin C tablets as preventive methods and some others had taken chloroquine, paracetamol, Ibuprofen as preventive measures. About 61% were practiced avoiding crowded areas, wearing masks, washing hands, and using sanitizers, taking vitamin C and citrus fruits and following WHO and CDC guidelines [5].

In a total of 2017 survey participants in Bangladesh, about 55% had more frequent practices regarding COVID-19 preventive measures and the majority agreed 'COVID-19 is a dangerous disease', almost all participants wore a face mask in crowded places, agreed to report a suspected case to health authorities, and about 94% implemented washing hands with soap and water[6].

The majority of the respondents had positive attitudes toward the adherence of government infection, prevention and control measures with (92.7%, 96.4% & 82.3%) practicing social distancing/self-isolation, improved personal hygiene and using face mask respectively [4]. About 97% of the respondents implemented hand washing among the prevention measures recommended by the WHO [10]. About 89% of the population exercised COVID-19 preventive measures [11].

KAP towards COVID-19 by Country
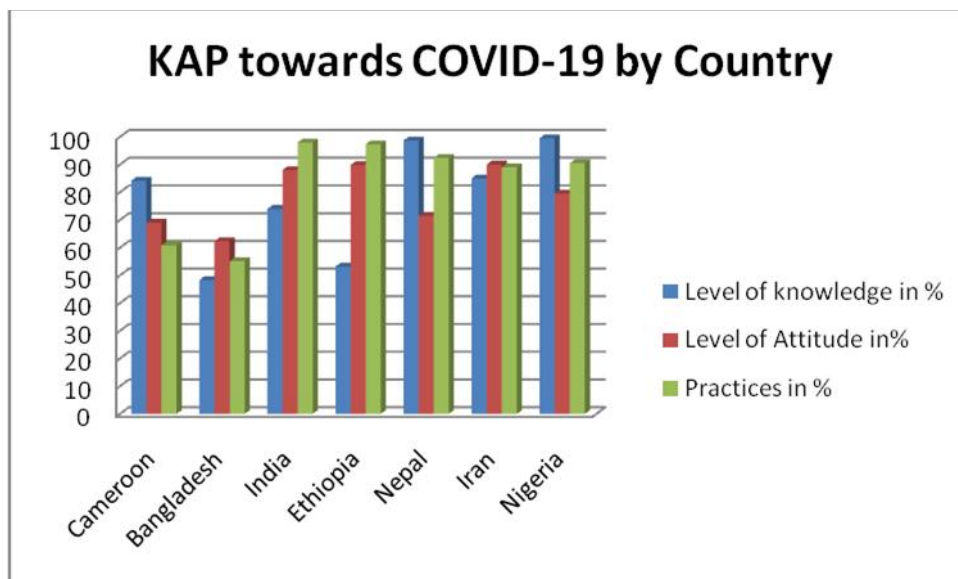
5. Conclusion

Assessing the peoples' knowledge, attitudes and practices towards the disease enhances their awareness to prevent and control the spread of the disease. The respondent's KAP towards COVID-19 vary by their age, level of education, marital status, occupation, residence, monthly income, and practices. Old age and patients with cancer, diabetes, hypertension, cardiac disease, chronic respiratory diseases, pregnant women and migrants from other parts of the world having COVID-19 have been identified as potential risk factors for severe disease and death.

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