

A Review on Knowledge, Attitude, and Practice During the COVID-19 Pandemic in Ethiopia

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Abstract

World Health Organization declared the novel coronavirus as a global public health emergency on January 30, 2020. COVID-19 has infected more than 17,660,523 people worldwide, with more than 680,894 deaths in different regions and countries. Based on the World Health Organization (WHO) Africa report, as of 02 August, 2020 a cumulative total of 802,792 confirmed COVID-19 cases with 13,779 deaths have been reported across all African countries in the region. In Ethiopia the virus spreads alarmingly because the community didn't practice the information given by Ministry of Health and the Government; as of August 2, 2020, 17,999 cases and 284 deaths. The level of panic in peoples is associated with knowledge and attitude according to Researchers. Good Knowledge, Attitude and Practice can be used to assess the current conditions and if it is used properly it plays a pivotal role to control the spread of COVID-19. Therefore, the government and ministry of health must give information to the society through TV, radio and social media repeatedly. So, the aim of the current study was to assess/review the knowledge, attitude and perception of the population towards COVID-19 pandemic in Ethiopia.

Keywords: Ethiopia; Practice; COVID-19; Pandemic

Introduction

The 2019 novel coronavirus (2019-nCoV) or the severe acute respiratory syndrome corona virus 2 (SARS-CoV-2) as it is now called, is rapidly spreading from its origin in Wuhan City of Hubei Province of China to the rest of the world [1]. Novel coronavirus (pandemic) was named as "Corona Virus Disease 2019" (2019-nCoV) by World Health Organization (WHO) in Geneva, Switzerland [2,3]. So this virus is deadly third-generation virus in Corona family apart from Middle East Respiratory Syndrome (MERS) in 2012 and Severe Acute Respiratory Syndrome (SARS) in 2003. The diameter of corona virus is 65-125 nm, and contains a single strand of RNA with lengths ranging from 26 to 32 kb and it is under Corona viridae family. Coronaviruses comprise several types, such as alpha, beta, gamma, delta, SARS CoV, H5N1 influenza A, H1N1 2009, and MERS-CoV [4].

World Health Organization declared the novel corona virus as a global public health emergency (pandemic) on January 30, 2020 [5]. Novel coronavirus disease is a highly infectious disease, and the ongoing outbreak has affected a huge part of populations around the world. There are four levels of COVID-19 transmission according to World Health Organization, such as, no cases reported, sporadic cases, Clusters of cases, or Community transmission [6]. Public health and social measures play a crucial role in reducing the number of infections and reduce death until the vaccine is ready [1].

The novel corona virus is transmitted through large droplets generated during coughing and sneezing by symptomatic and sometimes from asymptomatic patients [7]. Therefore, frequent hand-washing with soap and water and using sanitizer or alcohol is crucial. The common clinical features include fever (not in all), cough, sore throat, headache, fatigue, headache, myalgia and breathlessness [8].

COVID-19 has infected more than 17,660,523 people worldwide, with more than 680,894 deaths in different regions and countries. The USA, the major hit country alone, recorded more than 359,180 deaths on early August 2020. Based on the World Health Organization (WHO) Africa report, as of 02 August, 2020, a cumulative total of 802,792 confirmed COVID-19 cases with 13,779 deaths have been reported across all African countries in the region [9]. In Ethiopia the virus spreads alarmingly because the community didn't practice the information given by ministry of health and the government; as of August 2, 2020, 17,999 cases and 284 deaths have been reported [9].

Subsequently, Ethiopia has also commenced monitoring the disease and has implemented the COVID-19 prevention and containment interventions recommended by World Health Organization [10]. Health system of Ethiopia is not as developed as other countries so if the virus is not contained it will cost the country many things. Knowledge, attitude, and practice (KAP) research is important to collect information on what is known, believed, and done by a specific population [11]; But in Ethiopia those types of research is not available like other countries. It is vital to know the level of knowledge, attitude, and practice of the population towards COVID-19 to contain the virus in countries like Ethiopia. Therefore, this review aimed to assess the knowledge, attitude and perception of COVID-19 pandemic in Ethiopia.

Literature Review

A literature search was conducted in August 1-2, 2020 using the keywords Practice, Attitude, Knowledge, Ethiopia, and COVID-19 on PubMed and Google Scholar databases and the reference list of all identified reports and articles were searched manually in Google. The search yields a total of 13 articles.

KAP studies on COVID-19

Thirteen articles on KAP during COVID-19 in Ethiopia (**Table 1**). The articles used questionnaires and interview (including face to face and telephone) for data collection and the number of respondents ranging from 247 to 1570 for a total of 7,335. The respondents consisted of health workers, population, health students and patients from different corners of the country.

No.	Type of study	Participants	Number of participant	Instrument
1	Cross-sectional study on KAP	Patients (chronic diseases)	404	Questionnaire
2	Cross-sectional survey on KAP	Arba Minch Town (Population)	528	Online questioner
3	Cross-sectional survey on KAP	Students at Debre Berhan University	546	Questionnaire
4	Cross-sectional study on KAP	Population	1570	Telephone interview
5	Cross-sectional study on KAP	Healthcare workers	422	Questionnaire
6	Cross-sectional survey on KA	Population	1037	phone-based survey
7	Cross-Sectional Study on KAP	Students (Amhara)	408	Questionnaire
8	Cross-sectional study on KAP	Nurses	415	Questionnaire
9	Cross-sectional study on KAP	Patients visiting JMC	247	Interview
10	Online Cross-Sectional Study KP	Population	341	Online questioner
11	Online Cross-Sectional Survey on KP	Educated individuals	528	Online questioner

12	Cross sectional study on AP	Southern Ethiopia population	585	Interview
13	Cross sectional study on K	Health science students	304	Questioner
		Total	7,335	

Table 1: List of articles conducted on KAP in Ethiopia.

Knowledge

Thirteen articles on knowledge about COVID-19 among health workers, hospital staff, students, and sample populations. All articles reported substantial levels of knowledge about COVID-19 in Ethiopia. A research on 422 health workers showed that nurses obtained higher knowledge scores which are very important to tackle the virus because nurses are one of the frontline workers.

In a study by [12,13] the majority (70.1%) of the study participants reported that shaking hands of infected individuals result in the spread of infection. 217 (53.7%) knew touching an object or surface with the virus on it, then touching the mouth, nose, or eye transmits the virus and 337 (83.4%) knew respiratory droplets of infected individuals through the air during sneezing or coughing spreads the virus.

In other study, from 546 participants, 71.4% correctly responded that the main clinical symptoms of COVID-19 are fever, fatigue, dry cough, and shortness of breath, and the majority (95%) said currently there is no cure for COVID-19 and more than 73.6% of the participants used social media as their main source of information about COVID-19 [14].

Respondents heard about COVID-19 were (73.6%), 42.4% and 37.8% knew COVID-19 transmission and clinical manifestations, respectively. Respondents Amhara (AOR=0.497 (95%CI: 0.2990-0.6542) and Oromia (AOR=0.4512; 95%CI: 0.216-0.3218-0.8026) regional states had poor level of knowledge compared with respondents from Addis Ababa according to [15]. A study by revealed that 350 (88.2%) of participants had good knowledge about COVID-19. 75.5% and 82.6% of participants said, that COVID-19 has no specific treatment and vaccine respectively and the majority of healthcare workers gathered information regarding COVID-19 from social media (73.6%) and television (71.5%). However, sources of knowledge about COVID-19 are TV/Radio has a role of 424(80.3%) and followed by a social-media 372 (70.5%) according to [13].

A study by showed that 276 (67.6%) of the students said that air droplets from the infected persons can transmit the infection of COVID-19 to healthy individuals. Similarly, 375 (91.9%), 343 (84.1%), and 324 (79.4%) of the participants said that patients with COVID-19 can present with fever, dry cough, and shortness of breath respectively and 293 (71.8%) of the students have gotten information about COVID-19 from mass media (TV, magazines, newspaper, radio) and nearly fifty percent (54.2%) of the participants have gotten information from social media (face book, Instagram, what's app and telegram).

Attitude toward COVID-19

According to [13-16] Knowledge is a prerequisite for establishing prevention beliefs, forming positive attitudes, and promoting positive behaviors, and individuals' cognition and attitudes towards disease affect the effectiveness of their coping strategies and behaviors to a certain extent. A study by showed (72%) of the study participants had favorable attitude towards the COVID-19 and 85.3% of the nurses had disturbed psychological responses towards the COVID-19 (Table 2). The vast majority of the participants also held an optimistic attitude towards the COVID-19 epidemic according to [13]: 81.8% believed that COVID-19 will finally be successfully controlled, and 77.3% had confidence that world leader/WHO can win the battle against the virus

Participant	Instrument	Result
Patients (chronic diseases)	Questioner	222 (54.9%), 198 (49.0%), and 71 (17.6%) considered it easy: Avoiding; touching face with the unwashed hand, shaking others, and attending in a crowded population. nearly half of the study participant afraid of contracting the virus.
Arba Minch	Online questioner	82.6% of study participants washed their hands frequently with soap and water
Students at Debre Berhan University	Questioner	229 (42%) they have no concern of being infected with COVID-19.
Population	Telephone interview	50% of the respondents either agree or strongly agree that traditional herbs and religious faith such as holy water can cure COVID-19. Half of the respondents think that it is unlikely to get sick from COVID-19.
Healthcare workers	Questionnaire	(75.6%) of respondents said that COVID-19 is a seriously dangerous and 69.3% perceived that they are at high risk of contracting the disease
Students (Amhara)	Questionnaire	230 (56.4%) [95% CI 51.2%, 61%] of college students had positive attitude in the prevention and control strategies of COVID-19 pandemic.
Nurses	Questionnaire	The study participants had good attitude on COVID-19
Patients visiting JMC	Interview	77.3% of visitors frequently washed their hands with water and

		soap. 90.3% avoided crowded place.
Ethiopia population	Interview	(90.3) had good attitude toward covid-19 and its prevention.

Table 2: Attitude Studies in Ethiopia.

Practice toward COVID-19

Presents articles on the practice of COVID- 19 pandemic in Ethiopia. Two hundred sixty-five (65.5%) study participants reported that they washed their hands with soap frequently, (71.7%) of the respondents had avoided handshaking, (36.6%) of the study participants used face mask, 154 (38.1%) attending overcrowded place, 224 (55.2%) didn't clean frequently touched surfaces and objects and 121 (29.9%) didn't Practice physical distance [12]. Two hundred sixteen (40.9%) of participants gone crowded place and 336(63.3%) were didn't used face-mask when leaving their home. Three hundred ninety-six (75.0%) respondents were used sterilizers before and after touching inanimate object [13].

Discussion and Conclusion

In those thirteen studies on Knowledge, Attitude and Practice towards COVID-19 in Ethiopia; there is a gap between knowledge, attitude and practice; some had good knowledge about the virus but their practice was very poor that is why COVID-19 is increase alarmingly in Ethiopia. The review also revealed that knowledge directly influenced attitudes. Good KAP is a tool that can be used to assess the current conditions and if it is used properly it plays a pivotal role to control the spread of COVID-19. Therefore the following recommendations are given.

Government and ministry of health must give information to the society through TV, radio and social media repeatedly.

Address peoples live in rural area through health professional about what is at stake

Wearing mask must be mandatory

Follow people's day to day activities when they are in the shop/malls, taxi, work etc.

Data Availability

All the datasets used to support the findings of this study are all in the text.

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