Assessment on awareness towards preventive measures of COVID-19 in Sheka, Ethiopia: Community based cross-sectional Study

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Abstract

Background: The coronavirus disease 2019 (COVID-19) is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), and it is the most important of public health problem worldwide. A critical element in tackling the COVID-19 crisis is personal behavioral change; however, there is a paucity of evidence about peoples' awareness towards COVID-19 pandemic. Hence, this study was aimed to assess the people's awareness status towards COVID-19 in Sheka, Southwestern Ethiopia.

Methods: Community-based cross-sectional study was conducted between 10th to 21th April 2020. Four hundred-nineteen individuals participated during the study. Both univariable and multivariable logistic regression analyses were used to identify significant factors of awareness status, and variables with $p\text{-value} < 0.05$ indicated it significantly influences the awareness status of the individuals towards COVID-19.

Results: According to the study's results, nearly half (49.4 %) of the participants had awareness about COVID-19 pandemic. Factors such as sex, education level, religion, symptom, and knowing prevention methods were significantly associated with awareness of individuals towards COVID-19 pandemic. Respondents who did know all prevention methods (AOR: 8.1, 95% CI: 1.3, 51.9) are more likely to aware of COVID-19 than their counterparts.

Conclusion: The study showed that there is a low awareness status among people towards COVID-19. Hence, programs to improve awareness towards COVID-19 pandemic is essential to prevent and control the pandemic.

Background

Coronavirus is among the diverse families of viruses and a source of illness of the disease ranging from the common cold to more severe diseases such as middle respiratory syndrome [1]. COVID-19 case was first reported on 31st month of December 2019 in Wuhan city of China. Since then, it has been rapidly spreading as infectious disease, which has now developed to the global pandemic. The pandemic is affecting all major world economies; predicting to cause huge global economic crisis in 2020. Currently, the virus is spreading to the entire world and can infect people of all age groups. Older people and those with pre-existing medical history problems are more vulnerable to becoming severely ill with the virus [2–5]. COVID-19 is transmitted through droplets and fomites during close unprotected contact between an infected and healthy person. The airborne spread has not been reported for COVID-19, and there is no big driver of transmission based on available evidence [6].

Novel coronavirus case was first happened in Ethiopia on the 13th, March 2020 and preventive measures against COVID-19 is continuing in all parts of the country [7].

Declines in tourism and business travel, spillovers of weak demand to other sectors and economies through trade and production linkages; supply-side disruptions to production and trade (which are distinct from demand-side shocks spilling over through trade and production linkages); and effects on health

such as increased disease and mortality as well as shifts in health care spending are the major impacts of COVID-19 pandemic [8–10]. The COVID-19 is affecting educational systems worldwide, and it is leading to the widespread closures of schools and universities. The virus affected over 1.5 billion students worldwide, accounting for 87% of enrolled learners[11].

To date, there is no specific vaccine or treatment recommended to prevent COVID-19. Though messages related to COVID-19 transferred from health professionals and the concerned bodies frequently, still the utilization of preventive measures is low in our observation. A critical element in tackling the COVID-19 crisis is public behavior change. Behavior change requires public understanding, acceptance, and implementation of the recommended prevention methods. There is a paucity of evidence showing the status of individual awareness towards COVID-19 in Ethiopia. Thus, this study was aimed at assessing the awareness status of people towards COVID-19 in Sheka, Southwestern Ethiopia.

Methods

Study area and design

The current study was conducted in Sheka; Southwestern Ethiopia, and Masha town. Masha is located 951 Km to North West of Awassa, the capital of SNNPR and 676 km to Southwest of Addis Ababa. Sheka is bordered on the south by [Benchi-Sheko](#), on the west by the [Gambela Region](#), on the north by the [Oromiya Region](#), and on the east by [Kaffa Zone](#). Administratively, the Sheka Zone is structured into three provinces and two city administrations. A community-based cross-sectional study was conducted between 10th to 21th of April 2020. The study populations were all those who are living in Sheka Zone, Southwestern Ethiopia.

Sampling Procedure

Sample size was calculated using a single population proportion formula, and simple random sampling technique. Confidence level, margin of error, and expected maximum proportion were considered for calculating the sample size [12]. The required sample size was computed as is at 95% confidence level for normal distribution, which is 1.96, is a margin of error (5%), and 10 % none response rate was considered. Thus, considering (a maximum proportion for the awareness of individuals about COVID-19 pandemic because of no previous study was done), the sample size for this study becomes $384.5 + 38.5 \sim 424$.

Data collection tools and procedure

The data were collected using structured interview with administered questionnaire that was prepared based on the study objectives. The questionnaire was translated into the local language that is Amharic. Six health extension workers were engaging for twelve days (April 10-21 April 2020) for data collection. One-day training was given for data collectors by the investigators to control the quality of data.

The study variables

The outcome variable was the awareness status of participants dichotomized as aware and not aware (measured from understanding towards COVID-19 pandemic). Somebody is aware when she or he did know about COVID-19 prevention methods and control mechanism and not aware when the participants have poor understanding in the direction of COVID-19 prevention methods and control mechanism.

The socio-demographic factors such as age, sex, level of education, religion, source of income, prevention method used, knowing symptoms, use of quarantine, treatment, source of information, level of implementing of government and health professionals' declaration perceived by individuals, and pre-existing health condition of participants were measured from structural administered questionnaires.

Data analysis

Data were analyzed using SPSS software package (version 20). Frequency distribution, percentage, and plots were used to provide sound results[13]. The chi-square test was applied to examine the association between factors and the dependent variable. The logistic regression model was used to express the dependent variable or the response variable qualitatively expressed[14].

Binary logistic regression is the form of regression, which is used when the dependent variable is dichotomous, and the independent variables are any type. A binary variable has only two possible values, such as presence or absence of a particular event, in our study to identify whether the participants had awareness towards COVID-19 pandemic not.

$$\text{Model : } \ln(P_i / 1 - P_i) = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots \dots \dots \beta_k X_{ki}.$$

$P_i / 1 - P_i = \exp(\beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots \dots \dots \beta_k X_{ki})$. Where P_i is the probability of success, $1 - P_i$ is the probability of failure, β_0 is constant term, β regression coefficients and X_i is independent variables.

The odds are simply the ratio of the probabilities for the two possible outcomes[15]. If P_i is the probability that an event will occur, and then $1 - P_i$ is the probability that an event will not occur. $\text{odds} = \frac{P_i}{1 - P_i}$. Let in 2×2 tables, within row 1 the odds of success are $\text{odds}_1 = P_1 / 1 - P_1$ and within row 2 the odds of success equal $\text{odds}_2 = P_2 / 1 - P_2$. The ratio of the odds from the two rows (odd ratio) is given by $\text{odds Ratio} = \theta = \frac{\text{odds}_1}{\text{odds}_2} = P_1 / 1 - P_1 / P_2 / 1 - P_2$.

Parameters Estimation

The maximum likelihood and Wald test were used for parameter estimation methods in fitting logistic regression model.

The maximum likelihood estimates of the parameters could be obtained by maximizing the log-likelihood function from (ii) is given by $p_i = \frac{e^{(\beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots \dots \dots \beta_k X_{ki})}}{1 + e^{(\beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots \dots \dots \beta_k X_{ki})}}$ [14]. Since observe values of Y say, Y_i 's ($i = 1, 2 \dots n$) are independently distributed as Bernoulli, the maximum likelihood function of Y is given by:

$$L(\beta/y) = \prod_{i=1}^n p(y_i/x_i) = \prod_{i=1}^n \left[\frac{e^{x_i' \beta}}{1 + e^{x_i' \beta}} \right]^{y_i} = \left[\frac{1}{1 + e^{x_i' \beta}} \right]^{(1-y_i)}$$

Wald χ^2 statistics is used to test the significance of individual coefficients in the model and are calculated as follows: $\text{Wald} = \left[\frac{\beta}{\text{se}(\beta)} \right]^2 \sim \chi^2$ distribution with one degree of freedom.

Assessments of the fitted model

The Wald test is the most computing parameter estimation method for logistic regression method. After the model is fitted, the next important step is checking the model adequacy. Therefore, the Hosmer-Lemeshow test was used [16].

Results

The socio-demographic factors of the study participants were illustrated in Table 1. Four hundred-nineteen respondents participated in the survey and among the respondents, 207 (49.4 %) had awareness, and 212 (50.6 %) did not have an awareness towards COVID-19 pandemic, which was an almost equal proportion of awareness. Of the total respondents, males accounting, 97(46.9%), and females accounting, 110 (53.1 %) had awareness towards COVID-19 pandemic.

Table 1.Socio-demographic characteristics of the study participants (n=419)

Variables	Categories	Awareness status (%)		Chi-square		
		Yes	No	df	P-value	
Gender	Male	97 (46.9)	68 (32.1)	1	0.002	
	Female	110 (53.1)	144 (67.9)			
Age	Less than 20	15 (7.2)	5 (2.4)	5	0.009	
	20 - 29	88 (42.5)	65 (30.7)			
	30 - 39	59 (28.5)	89 (42.0)			
	40 - 49	31 (15.0)	34 (16.0)			
	50 - 59	8 (3.9)	11 (5.2)			
	>=60	6 (2.9)	8 (3.8)			
Education Level	Illiterate	33(15.9)	29 (13.7)	2	0.539	
	Primary level	75 (36.2)	119 (56.1)			
	Secondary & above	99 (47.8)	64 (30.2)			
Religion	Orthodox	107 (51.7)	106 (50)	4	0.000	
	Muslim	47 (22.7)	56 (26.4)			
	Catholic	22 (10.6)	4 (1.9)			
	Protestant	23 (11.1)	21 (9.9)			
	Others	8 (3.9)	25 (11.8)			
Source of income	Daily workers	59 (28.5)	68 (32.1)	2	0.089	
	Trade	77 (37.2)	92 (43.4)			
	Salary	71 (34.3)	52 (24.5)			
Prevention	Partially used	58 (28)	95 (44.8)	2	0.001	

Methods	Fully used	144 (69.6)	115 (54.2)		
used by individuals	No idea	5 (2.4)	2 (0.9)		
Treatment	Treatment	17 (8.2)	31 (7.4)	2	0.418
assumed by	No any treatment	137 (66.2)	269 (64.2)		
Participants	No idea	53 (25.6)	119 (28.4)		
Source of	Television	76 (36.7)	74 (39.9)	4	0.006
information	Radio	10 (4.8)	16 (7.5)		
	Health professional	64 (30.9)	37 (17.5)		
	All	55 (26.7)	77 (36.3)		
	No idea before	2 (0.9)	8 (3.7)		
Use of	Know	203 (98.1)	210(99.1)	1	0.394
Quarantine	No idea	4 (1.9)	2 (0.9)		
Knowing symptom of COVID-19	High pulmonary pain and difficult to breath	2 (1)	10 (4.7)	3	0.002
	Fever & Dray Cough	27 (13)	40 (18.9)		
	All	131 (63.3)	99 (46.7)		
	No idea	47 (22.7)	63 (29.7)		
Pre-existing	Normal	167 (80.7)	157 (74.1)	7	0.015
health level	Diabetic Mellitus	8 (3.9)	12 (5.7)		
of participants	Addiction	11 (5.3)	2 (0.9)		
	Hypertension	7 (3.4)	15 (7.1)		
	HIV	4 (1.9)	6 (2.8)		
	Pregnancy	6 (2.9)	14 (6.6)		
	Seizure	1 (0.5)	4 (1.9)		
	Renal disease	3 (1.4)	2 (0.9)		
Level of	Fair	98	123	4	0.004

implementation		(47.3)	(58.0)
	Medium	68 (32.9)	74 (34.9)
perceived	High	22 (10.6)	8 (3.8)
	Very high	13 (6.3)	3 (1.4)
	No idea	6 (2.9)	4 (1.9)

The educational level of respondents increased proportion of awareness of the COVID-19 pandemic. The percentage of understanding is (15.9%) for non-educated participants, (36.2%) for primary educated participants and (47.8%) for respondents whose education level is secondary and above had an awareness of COVID-19.

Concerning the source of information, 76 (36.7%), 10 (4.8%), 64 (30.9%), 55 (26.7%) and 2 (0.9%) of respondents obtained information about COVID-19 from Television, Radio, Health professionals, and no source information respectively had an awareness of COVID-19 pandemic.

Table 1 also illustrated prevention methods recommended by the world health organization (WHO) that were used by the respondents. Thus, 58 (28%), 144 (69.6%) and 5 (2.4%) of respondents used prevention methods partially, fully used or apply all WHO recommended prevention methods and no idea for prevention or they did not apply WHO recommended prevention methods respectively had an awareness of COVID-19 diseases.

210 (99.1%) of participants who were informed about the use of quarantine were aware of the preventive measures of COVID-19 while, 2 (0.9%) of those who had no idea about the quarantine were not aware.

Table 1 also shows the pre-existing health level of respondents; the pre-existing health level of respondents were 324 (77.3%), 20 (4.8%), 13 (3.1%), 22 (5.3%), 10 (2.4%), 20 (4.8%) and 5 (1.2%) respectively are normal, diabetic mellitus, addiction, hypertension, HIV+, pregnancy, seizure, and renal disease. The participants' awareness status differed significantly across/among all socio-demographic except for, the source of income, treatment, use of quarantine or isolation, and educational level.

Figure 1 show that 52.74 percent of respondents fairly implemented, 33.09 percent applied in the medium, 7.16 percent applied highly implemented, 2.39 percent implemented too high, and 0.48 percent not implemented for government declaration towards COVID-19 pandemic.

Figure 2 showed that the probability of the individual's awareness towards COVID-19 is decreasing, whereas the chance those individuals will not be aware of COVID-19 increases. It implies an awareness creation strategy to maximize the individual's awareness of COVID-19 pandemic.

The χ^2 statistic with 8 degrees of freedom is 14.911, and the p-value is 0.06. Thus, the model well fitted the data (Table 2).

Table 2: Hosmer and Lemeshow Test of good ness of fit

Chi-square	df	Sig.
14.911	8	0.061

A classification table used to distinguish accurately predicted value of awareness of respondents towards COVID-19 (Table 3). The table is indicating the validity of predicted probabilities (Table 3). The first two rows in Table 3 stands for the two possible outcomes, and the two columns under the heading predicted are for high and low probabilities.

Table 3. The Observed and the Predicted Frequencies for Awareness of Respondents towards COVID-19 by Logistic Regression with the Cutoff of 0.50

Observed		Predicted		
		Awareness		Percentage Correct
		yes	No	
Awareness	yes	148	59	71.5
	No	50	162	76.4
Overall Percentage				74.0

*Note. Sensitivity = $148 / (148 + 59) \% = 71.5\%$. Specificity = $162 / (50 + 162) \% = 76.4\%$.
False positive = $50 / (148 + 50) \% = 25.5\%$. False negative = $59 / 59 + 162) \% = 26.7\%$.*

The observation also held in the sensitivity (71. 5%) as compared to that of specificity (76.4%). Sensitivity measured the correct proportion of classified events (the awareness of individuals towards COVID-19). Specificity measures the true proportion of classified non-events (those not suggested for awareness of individuals towards COVID-19). Both false positive and false negative rates are a little more than 25 %. The false positive and false-negative rate respectively measure the proportion of observing misclassified as events and miss classified as non-events. Thus, the overall correction prediction was 74% on the progress over the chance level to aware of the COVID-19 pandemic.

The results from multivariable analysis revealed that sex, religion, education level, understanding prevention methods were factors associated with awareness status of COVID-19 (Table 4).

Table 4. Parameter estimates of binary logistic regression using forward stepwise variable selection Method.

Variables	Categories	β	S.er.	Wald	df	P-value	AOR	95% C.I. for EXP(B)	
								Lower	Upper
Sex	Male (ref)								
	Female	-0.743	0.247	9.061	1	0.003	0.476	0.293	0.772
education	Illiterate(ref)								
	Elementary	-0.349	0.361	.933	1	0.334	0.706	0.348	1.431
	Secondary +	0.779	0.254	9.374	1	0.002	2.178	1.323	3.586
Religion	Orthodox (ref)			15.395	4	0.004			
	Muslim	-1.238	0.493	6.300	1	0.012	0.290	0.110	0.762
	Catholic	-1.048	0.522	4.026	1	0.045	0.351	0.126	0.976
	Protestant	-2.879	0.749	14.771	1	0.000	0.056	0.013	0.244
	Others	-1.327	0.576	5.301	1	0.021	0.265	0.086	0.821
Symptoms	Pulmonary and difficult to breath (ref)								
	fev,dry cough	1.718	0.979	3.076	1	0.079	5.572	0.817	37.991
	All	0.265	0.401	.436	1	0.509	1.303	0.594	2.857
	Don't know	-0.541	0.285	3.593	1	0.058	0.582	0.333	1.019
	Partially(ref)								
	Fully used	2.095	0.946	4.908	1	0.027	8.127	1.273	51.871
	None of used	1.384	0.950	2.122	1	0.145	3.990	.620	25.673

*= P < 0.05 *

The odds ratio (OR) of education (secondary and above) equal to $\exp(0.779) = 2.178$ (95% CI: 1.323, 3.586) (adjusted other variables). The respondents whose education level is secondary and above education level are 2.178 times more likely to aware of COVID-19 than respondents whose education level is illiterate (Table 4). The odds ratio (OR) of religion (muslim, catholic, protestant and others) are respectively equal to $\exp(-1.238)$, $\exp(-1.048)$, $\exp(-2.879)$, and $\exp(-1.327) = 0.290$, 0.351 and 0.056 , 0.265 [95% CI: (0.110, 0.762); (0.126, 0.976); (0.013, 0.244); (0.086, 0.821)] (adjusted others variables). The respondents whose religion, muslim, catholic, protestant, and others respectively are 0.290, 0.351, 0.056 and 0.265 times less likely to aware of COVID-19 pandemic than those respondents whose religion is orthodox (Table 4).

The odd ratio of prevention method (fully used) equal to $\exp(2.095) = 8.127$ (95% CI: 1.273, 51.871) (other variables are adjusted) is 8.127 times more likely to aware about COVID-19 pandemic than those respondents partially used (at most three prevention method have used).

Discussion

Now days, the COVID-19 pandemic is accelerating worldwide. The Ethiopian government is taking many measurements to tackle the impact of COVID-19 on any business sector and the wellbeing of individuals. It is, therefore, mandatory to explore the effects of COVID-19 in Ethiopia and to set out immediate priorities and longer-term strategies for appropriate interventions. Culturally, in Ethiopia, it is hard to apply all COVID-19 prevention strategies since individuals are highly sociable, culturally indispensable among each other, and the marketing system is traditional.

The COVID-19 is a current language spoken by almost all media all over the world. However, society is still not aware of the risk of COVID-19 pandemic. The study showed that 50.6 % of participants did not have awareness about the COVID-19 pandemic. The overall correction prediction value was 74%. It is an improvement over the chance to be aware of the COVID-19 pandemic, and 26 % chances did not get being aware of COVID-19. The current study is consistent with the study done in the awareness of the individual towards COVID-19 disease[17].

Hence, much effort is needed to be done towards awareness for the individual about COVID-19 by assessing socio-demographic factors and the individual's perception towards COVID-19 pandemic management. Quarantine is one mechanism to control the coronavirus pandemic. The study showed that about ninety-eight percent of the societies had awareness about quarantine. The current study is consistent with the study done in Middle East Respiratory Syndrome Coronavirus epidemic impact on healthcare workers' risk perceptions, work and personal lives[18] and also consistent with the study conducted in Vietnam where 97.9% of the participants agree to quarantine[19].

According to the world health organization (WHO) advice, the individual expected to be high risk by COVID-19 pandemic if their current health level is pregnancy, seizure, hypertension, diabetic Miletus, addiction, HIV, chronic pulmonary and chronic renal disease. The study showed that people with diabetic Miletus, hypertension, HIV, and renal disease patients considered to be at high risk of suspected to COVID-19 infection.

Thus, special attention should be given to the high susceptible society in the town administration by creating awareness about the COVID-19 pandemic (table 1). According to this study, 2.39 % of participants never implemented the government, and health professions advice how to prevent coronavirus pandemic prevention strategies (figure 1). Henceforth, the results need much intervention tall prevention strategies towards COVID-19 to the individual.

Currently, there is no vaccine or treatment to coronavirus pandemic. However, still, there is a myth that there is vaccine to prevent the disease. In the study, 8.2 % of individuals assumed that there is a vaccine, and these results showed that it is risky to manage the pandemic. The level of implementation of government and health professional declaration regarding COVID-19 pandemic overall prevention strategies are questionable since some individuals were not still implementing the government declaration.

The awareness of some individuals depends on religious aspects. Some religions may preach that the disease becomes from God and so that it is so hard to stop by government declaration and health professionals. The model may tell us some religions are less aware (religion concern) than other religions even if we cannot recommend which religion is better. As it is known, the Ethiopian religious association agreed to announce declaration for one month to pray to tackle the hidden challenge of the pandemic, which is an unseen enemy causing multitude of socio-economic crisis all over regardless of all aspects in the world.

The study found that mass media and public health care workers were the most important sources of information in Sheka Zone, Tepi Town administration for individual's awareness towards COVID-19 pandemic. This finding is similar to Myanmar adults study because it used the familiar sources which are social media and mass media[20]. Also the study conducted in Hong Kong in which their common sources were social platform and mass media but different with health care workers study in which their primary sources were not only social media but also official government websites[21], [22] and in Pakistan healthcare professionals study reveal the same result with the current study [23].

The multivariable binary logistic regression was used to identify the factors influencing society's awareness of COVID-19. The results showed that sex, educational level, and preventive strategies are significant factors in the understanding of individuals. These findings were similar to the study conducted in Myanmar adults on awareness, perceived risk, and protective behaviors to COVID-19 and in Saudi Arabia[20], [24].

Limitation of study

Though the investigators did their best to assess the factors and status of peoples' awareness towards preventive measures of COVID-19, it is not free from limitations. The survey was conducted as early as the pandemic on set in Ethiopia. Consequently, more literatures were not incorporated for supporting the designation of the methodology.

Generalizability of the results

The study results are generalized on the whole population because of the study used probability sampling technique, and appropriate procedures. Thus, more than ninety-eight percent of participants actively participated during the survey.

Conclusion

The finding highlights the awareness status in Sheka, South Nation Nationalities' Peoples of Region, Tepi town administration, Southwestern part of Ethiopia, and individuals presently practicing concerning COVID-19 pandemic. The study assessed individuals' awareness and experience in the direction of COVID-19 pandemic. According to our finding, the main factors for being aware are gender being female, education level being secondary and above level, religion, knowing symptoms of COVID-19 and

prevention strategies. The study found that below half of the respondents (49.4%) agreed on the essential role of individuals in the prevention of COVID-19 pandemic and they decided to inform suspected instances to any involved health care workers and follow the directions of the ministry of health authorities and the establishment policies to forestall the pandemic. Also, the finding confirmed that more than half (50.6%) of the individuals had no awareness and poor protecting experience to prevent COVID-19 pandemic. The study found 54.18 percent of the individuals fairly implemented and 0.48 percent of the individuals did not put into effect the government declaration strategies to stop COVID-19 pandemic. The study was also capable of highlighting gaps in the precise element of perception and preventive experience that should center in future attention and instructional campaigns.

The study recommends extra teaching involvement and movements are required for all individuals to help them with the awareness of the capacity of transmission, the symptoms and prevention strategies. The study also recommends the ministry of health authorities, public health care professionals, other countrywide and worldwide health organizations, mass media, social media and all concerned bodies to make promoting and put in force of all protecting and preventive measures of COVID-19 pandemic in the direction of the individuals. Further studies should be warranted in country level and explore other factors that are not addressed in this study.

Abbreviations

CDC: Centers for Disease Control and Prevention

COVID-19: Coronavirus Disease 2019

AOR: Adjusted Odd Ratio

WHO: World Health Organization

SNPPR: South Nation Nationalities and Peoples of Region

Declarations

Ethics approval and consent to participate

Written permission was obtained from Mizan-Tepi University, with reference number MTU/19/86//09/2020 to Tepi Town Public Health Office and then they approved it.

The Approval Committees Were:

- i. Yideg Mamo, Chief Executive of Mizan-Tepi University, e-mail: mamoyideg@gmail.com
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The participants were told them about the study objectives and the provided information kept confidentially. They were also told them that they have the right to say no the interview even in the at the time of survey if they are inconvenient

Consent for Publish

Not applicable

Availability of data and materials

The data will be given upon on request behalf of corresponding author.

Competing interests

No potential conflicts of interest declared.

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Authors 'contributions

Both authors were responsible for the conception, data analysis, interpretation of the results, writing manuscript. Finally all authors had read and approved the manuscript.

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All who directly or indirectly contributed for this study are duly acknowledged.

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Figures

Figure 1

Level of implementation the government declaration regarding COVID-19 by individuals

Figure 2

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