Rapid Study on Knowledge, Attitude, Perception and Social Economic Impacts Related to COVID-19 Outbreak in Kenya

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Abstract:
The novel corona virus (COVID-19) continues to spread across the world and now it has become a pandemic. However, little is known about how people are likely to react to a pandemic crisis in Kenya making it difficult to develop effective communication strategies and behavioural interventions that anticipate people’s possible reactions and subsequently limit the consequences of a pandemic if it were to occur again. This rapid study aims to understand possible behavioral reactions to COVID-19 by understanding knowledge, attitude, perceptions and possible socio-economic impacts related to COVID-19. Results indicate moderate level of knowledge about COVID-19 and adequate knowledge about the preventive measures. Although responders were willing to follow government guidelines on quarantine and social distancing, it was very clear that social distancing is a privilege only a few can afford in Kenya. Results indicate that the use of SMS to share COVID-19 alerts, notifications and messaging was preferred by most respondents. The anxiety levels identified were also high, where 78% of the participants were worried about losing a loved one to COVID-19. The study proposes some recommendations to be considered in order to combat the spread of COVID-19.

Keywords: Corona virus, COVID-19, pandemic, behaviour

1. Introduction
Corona viruses (CoV) are a large family of viruses that cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV) (WHO, 2020b). In December 2019, a cluster of pneumonia cases of unknown aetiology was reported in Wuhan, Hubei Province, China and on 9 January 2020, China CDC reported a novel corona virus (COVID-19) as the causative agent of this outbreak (WHO, 2020a). This disease has since spread globally resulting to 2019-2020 corona virus pandemic which was declared by the World Health Organization (WHO) in March 2020.

The Kenyan Ministry of Health (MOH) in collaboration with other in-country partners launched the COVID-19 Taskforce to implement initial prevention and mitigation measures. Following first case detection of COVID-19 in Kenya on 13th March 2020, unprecedented measures were adopted to control the rapid spread of the ongoing COVID-19 in Kenya. This measure includes; closure of all schools and learning institutions, closure of all international airports and banning of incoming flights, placing incoming passengers on a mandatory 14-day quarantine, burning of mass gatherings including in places of worship and promoting intensified hygiene and hand washing practices. To provide for the required physical distance, a work-from-home order for citizens and a partial curfew was instituted except for those delivering essential services, additionally, movement cessation in and out of the hot spot regions was also enforced.

Human being is otherwise irrational and people’s adherence to control measures is affected by their knowledge, attitudes and perceptions towards COVID-19. Given the deficit of knowledge on the influence of behaviour on prevention and control efforts in Sub Saharan Africa and specifically in Kenya, an online survey was rolled out to collect data on knowledge, attitudes and practices (KAP) related to COVID-19 among people living in Kenya. This survey was intended to answer the following questions:

- What are the current knowledge levels and attitudes related to COVID-19 outbreak in Kenya?
- Is there knowledge, attitude and behaviour gaps amongst gender?
- What is the information needs of Kenyans and the preferred mode of communication and awareness creation?
- What are the main worries of Kenyans concerning COVID-19 outbreak?
- What are the socio-economic impacts of COVID-19 experienced by Kenyans?

The findings of the study will be used on an on-going basis to inform response plans, offer important insights to fight the corona virus and also provide a basis for learning and sharing. This will inform the development and planning of behaviour change campaigns, COVID-19 tracking, and other interventions as needed throughout the pandemic.
2. Methodology

2.1. Sampling Design
A Snowball sampling technique was used to collect data where an online cross-sectional study was conducted between March and April 2020. A semi-structured questionnaire was developed on Kobo Collect and the link shared through WhatsApp and other Kenya red cross social media platforms including twitter and Facebook. Interviews were self-administered through mobile phones and in some cases the community members were interviewed by the Red Cross Action Team (RCAT) as they did community sensitization in their respective areas. All data collection was conducted in the dominant local language (Swahili/English).

2.2. Questionnaire Design
The online self-reported questionnaire developed by the investigators contained the following five sections including a section on consent, persons' behaviour during COVID-19, emotional feelings, social and economic impacts and demographics. On the behaviour section, questions related to perceptions, attitude, practice on measures taken to prevent COVID-19 infection/spread and confidence about government's efforts were incorporated. The emotional feeling section looked at how individual felt about the virus and what worries them the most. The social and economic impact section looked at how COVID-19 is impacting on their livelihoods, the coping mechanisms and the social impacts experienced so far such as rejection by family, disturbed relationship with spouse, stigmatization, restricted freedom among others.

2.3. Data Analysis
Data collected was analyzed using R statistical software. Descriptive statistics such as mean and percentages were calculated for the respective characteristics and graphical presentation of data was adopted where appropriate. Pearson's Chi-square test was used to test the differences and the p value ≤ 0.05 was considered significant.

3. Results

3.1. Demographic Characteristics of Participants
Table 1 summarizes the demographic characteristics of the respondents. The sample size was equally split in terms of gender with majority (n=125; 56%) of the respondents being married or cohabiting and 99 (44%) were single. The least frequent age group was >60 years with 4 (2%) respondents. Majority of the respondents (n=134; 60%) had children who were below 18 years of age and only 13% of the respondents had pre-existing health conditions.

3.2. Knowledge, Attitude and Perception
The knowledge section in the survey intended to focus on the perception of the participants about COVID-19 (general knowledge about COVID-19, symptoms, transmission mode, treatment and prevention) with respect to gender as shown in Table 2.

It was found that every respondent was aware of COVID-19. More than 80% of respondents recognized people aged 60 years or older and people who have serious chronic diseases e.g. diabetes, asthma, heart or lung disease as those who are at risk of severe illness if they are infected with the novel corona virus. More women (43% p<0.05) were inclined to the idea that pregnant women were more at risk of severe illness as compared to men.

Awareness of fever (Female 92%; Male 94%), flu-like symptoms such as coughing and sore throat (Female 95%; Male 95%) and shortness of breath (Female 92%; Male 89%) as COVID-19 symptoms was high. Only a few respondents (Female 4%; Male 2% and Female 22%; Male 31%) mentioned blood pressure and diarrhea as COVID-19 symptoms. More than 90% of respondents reported more than one way of COVID-19 transmission, this includes droplets from coughing or sneezing (Female 96%; Male 95%), intimate contact with infected person e.g. shaking hands, kissing or hugging (Female 83%; Male 81%), touching objects/surfaces that are contaminated with droplets from infected person and then touching your mouth, nose and eyes (Female 90%; Male 92%). Only 1(1%) respondent mentioned mosquito bites as transmission mode. Of all the participants, more than 90% knew that there is currently no drug treatment or vaccine for the novel corona virus. Overall, it is worth noting that there was no significant association between knowledge and gender.

As illustrated in Table 3, more than 80% of respondents were taking several precautions such as Washing hands for at least 20 seconds, avoiding touching eyes, nose, and mouth with unwashed hands and use of disinfectants to clean hands when soap and water is not available. In addition, females had significant levels of avoiding social gatherings (96% p<0.05) as compared to males. Around 73% (p<0.05) of females reported to be washing their hands every time as compared to males. On the other hand, more than half of respondents (Female 67%; Males 57%) required to leave their homes in the next five days with majority of them (76% and 58%) indicating procurement of food and going to work as the main reasons for them to leave their homes (Figure1).

As shown in Table 4, several themes gained agreement amongst the participants where majority of respondents (Female 98%; Male 98% and Female 97%; Male 98%) agreed that people should cancel their participation at social gatherings because of COVID-19 and that people should not shake other people’s hands. Majority of respondents (Female 50%; Male 42%) thought that the reaction of the government to the current corona virus outbreak was somewhat insufficient and only a few respondents (Female 10%; Male 6%) strongly trust the government to take care of its citizens.
Regarding emotional feeling of the respondents, more than 75% agreed that they were nervous when they think about the current circumstances, they were worried about their health and that of their families and were worried about their jobs/businesses.

The top 3 worries reported by respondents were losing their loved ones, health system being overwhelmed and restricted access to food supplies. As shown in Table 5, there was no significant association between emotional feeling and gender.

3.3. Communication and Awareness Creation

With regards to sensitization and communication, majority of our respondents (Female 88%; Males 87%) and Female 75%; Males 76%) heard of COVID-19 from TV and social media respectively. However, majority preferred to receive COVID-19 information through SMS. There was no significant association between mode of communication and gender. With regards to information needs, women were mostly interested in personal stories from others on how to cope (57%, p<0.05) while men were more interested in receiving information about COVID-19 (51%, p<0.05).

3.4. Socio-Economic Impacts of COVID-19

Generally, 46% of the respondents mentioned reduced productivity as the main impact of COVID-19 followed by increased expenditure, shortage of supplies and reduced sales (Figure 2). Majority (68%) of respondents were utilizing their savings to cope with the current situation (Figure 3). Only a few respondents (7%) reported to have experienced rejection and stigmatization/discrimination.

4. Discussion

While our survey revealed high levels of knowledge of COVID-19 symptoms and modes of transmission, knowledge gaps still exist as more than half (57%) of respondents reported to have not received any training or sensitization on COVID-19. Misinformation such as rumours of COVID-19 fake remedies, including boiling water and garlic, taking black tea and getting a flu shot were already in circulation. It’s therefore crucial to have continuous engagement with communities to demystify the myths.

From our results, more than half of respondents needed to leave their homes with the main reason being to procure food and go to work. While it’s more practical for people who work in offices to work from home, people living from day to day, counting on earning cash in the market to buy food, staying at home is the variance between poverty and starvation. There is therefore need for government to put more emphasis on control measures which do not affect individuals’ livelihood, for example wearing of face masks was only practiced by a few respondents (Female 19%; Males 24%) at the time of the study. Kenya can also borrow some of the lessons learnt during the Ebola epidemic in Liberia, for example, the need to engage chiefs and local government when designing control measures (Health Communication Capacity Collaborative (HC3), 2017).

From the findings, females were reported to having high levels of avoiding social gathering and observing the handwashing protective measures as compared men. Plain hygienic measures have been documented to have the strongest evidence in preventing the spread of respiratory viruses(Jefferson T, 2011). While these measures are tougher to follow for men, behaviour change communication is critical and need to be tailored to gender subgroups.

Reduced productivity, increased expenditure, shortage of supplies, reduced sales and layoffs were the main economic impacts of COVID-19 outbreak in Kenya as reported by the respondents. With individuals already suffering hardships because of unemployment, drought, floods or swarm of locust, support is provided by relatives or their social network. Unlike other threats, everyone is either directly or indirectly affected by COVID-19 in terms of both their health and their livelihoods thus limiting the support people are able to mobilize through their networks. With movement cessation restriction, it is now impossible to move back to rural area or send children to live with relatives. As a result, majority (68%) of the respondents are utilizing their savings as a way of coping with the current situation.

Losing someone you love, health system being overloaded, restricted food supply and becoming unemployed were the main worries among the respondents (Table 5). This stress and anxiety can lead to depression, anxiety, and increased alcohol and drug use (Milner A, 2014). Not knowing how the situation will unfold impacts our economic, physical and mental well-being negatively. Additionally, daily reports from media on increasing infections, deaths, unavailability of treatment and health system being overwhelmed in some countries increases anxiety among public. This indicates that media (information overload) also influences the mental well-being and add to the level of anxiety. The swine flu pandemic of 2009–2010, which resulted in high mortality worldwide also caught global media attention and evoked anxiety among the public significantly(Everts, 2013). As a result, there is need to promote outlets that seeks to provide targeted counselling to those who are directly affected by COVID-19 pandemic, including, those who have lost their jobs, front line health care workers and people at risk of severe infection.

As the pandemic continue to evolve, it is crucial to provide health education and create awareness during such situations for effective prevention of disease spread (Johnson, 2017). In this time of panic and anxiety, Kenyans have greater expectations from the government, media, NGO and other brands to offer guidance on how to deal with this pandemic. As people practice social distancing, they will be more reliant on digital modes of communication such as TV, Radio, social media and SMS. From our study, although majority of our respondents heard of COVID-19 from TV and social media sites, SMS was the most preferred mode of communication (Table 6).

With more than 100% mobile phone penetration in Kenya (Communication authority of Kenya(CAK), 2019), short text messages are among the effective ways in which the government can provide vulnerable communities with useful practical information about preventing COVID-
There is also need to roll out and strengthen programs that address mental health. Additionally, information targeting key populations may lead to increased uptake and adherence to the control measures put in place by our government. From the findings, there was significant difference in information needs between males and females with females being more interested in personal stories on how to cope with situations. There is therefore need to package COVID-19 prevention information differently for different target population.

5. Limitations
The study is limited to the people who had smartphones, access to social media and the ability to read and write Swahili and English. This represents the educated population of the country, so it should not be generalised to the whole population. The awareness, attitude, anxiety and perceived mental healthcare need in uneducated people may be different from the findings of our study.

6. Conclusion and Recommendations
With the increasing trend of infection in Kenya, society should be watchful of its joint resilience. Although most people are aware of this pandemic, continuous community engagement is necessary to demystify myths concerning COVID-19 infection and treatment. There is also need to roll out and strengthen programs that address mental health issues as a result of increased stress levels during this pandemic. Behaviour change campaigns targeting key populations in the society need to be on the increase in order to combat the spread of COVID-19. Being a worldwide problem, global community needs to work together and assist each other in fighting the pandemic.

6.1. Recommendations
- Increase sensitization to bridge knowledge gap – COVID-19 virus has come with a relentless flood of information making it difficult for individuals to separate truth from fiction and rumour. It is therefore necessary to engage community members regularly and proactively through participatory two-way communication in order to answer community questions and demystify Myths
- Package COVID-19 prevention information differently for different target population - Although the prevention measures are the same, unrealistic expectations of not getting infected reduces the urge to take precaution. This could be because some people consider themselves too young to die from the virus. Additionally, those living in remote areas and those who are illiterate might not have access to or might have difficulty in understanding publicly available COVID-19 information.
- Behavioural change communication campaigns targeting men - From our results females reported high levels of avoiding social gathering and observing hand washing practices as compared to men. Encouraging men to adopt this protective measure is critical in preventing the spread of COVID-19.
- Engage local people when designing control measures - From the survey it’s clear that social distancing is a privilege only a few can afford in Kenya. Although transmission mechanisms are the same everywhere, disease burden and economic vulnerability differ vastly by region. Engaging locals in determining and enacting control measures can help in getting the buy in from community in adhering to the measures put in place to combat the spread of COVID-19 and hence flattening the epidemic curve.
- Promote outreachs that seeks to provide targeted counselling to those who are directly affected by COVID-19 pandemic, including, those who have lost their jobs, front line health care workers and people at risk of severe infection - Social stigma and discrimination can be associated with COVID-19 including towards people infected with COVID-19, their family members and healthcare workers. Additionally, those people who have lost their jobs and those who are at risk of contracting the disease may experience increased levels of stress and anxiety during this time of crisis. It is therefore important to mobilise public awareness campaigns that support mental and psycho-social well-being in different target populations.
- Use SMS campaigns with multiple languages (local languages) for sending alerts and notifications on awareness, prevention and care for people who are at risk of severe illness. Widespread mobile phone usage in Kenya can be used as an assert to spread information about COVID-19. From our results, majority of respondents preferred to receive information about COVID-19 through SMS as the application are automatically installed on every single phone, and SMS delivery is done in seconds and with real time delivery reports.
| Characteristic                     | N     | %    |
|-----------------------------------|-------|------|
| **Marital Status**                |       |      |
| Married/co-habiting               | 125   | 56   |
| Single/divorced                   | 99    | 44   |
| **Gender**                        |       |      |
| Female                            | 113   | 50   |
| Male                              | 111   | 50   |
| **Do you have children below 18 years?** | |  |
| No                                | 90    | 40   |
| Yes                               | 134   | 60   |
| **Number of chronic diseases**    |       |      |
| 0                                 | 195   | 87   |
| 1                                 | 25    | 11   |
| 2                                 | 4     | 2    |
| **Age groups**                    |       |      |
| 18-29                             | 78    | 35   |
| 30-39                             | 84    | 38   |
| 40-49                             | 45    | 20   |
| 50-59                             | 10    | 5    |
| 60+                               | 4     | 2    |
| **Household size**                |       |      |
| 1                                 | 26    | 12   |
| 2-3                               | 68    | 30   |
| 4-5                               | 74    | 33   |
| 6+                                | 55    | 25   |

The results are expressed as percentages (%). N: number of participants

**Table 1: Demographic Characteristics of Respondents**

| Question                                                                 | Female: N(%) | Male: N(%) | P.value |
|--------------------------------------------------------------------------|--------------|------------|---------|
| Are you aware of the novel Covid19 pandemic?                             | 113 (100)    | 111 (100)  | 1       |
| Which groups are at risk of severe illness if they are infected with the novel coronavirus? | | | |
| People aged 60 years or older                                           | 105 (93)     | 100 (90)   | 0.6121  |
| Pregnant women                                                           | 49 (43)      | 28 (25)    | 0.0112* |
| Infants                                                                  | 29 (26)      | 21 (19)    | 0.3096  |
| Small children aged 1-5 years                                           | 32 (28)      | 24 (22)    | 0.4142  |
| People who have serious chronic diseases e.g. diabetes, asthma, heart or lung disease | 102 (90)     | 98 (88)    | 0.8212  |
| Travelers who have been overseas                                       | 54 (48)      | 35 (32)    | 0.0304* |
| Which of the following is correct about the transmission of the novel coronavirus? | | | |
| Transmissible via droplets through coughing, sneezing?                  | 108 (96)     | 105 (98)   | 1       |
| Transmissible via mosquito bites?                                       | 1 (1)        | NA         | 1       |
| Transmissible through intimate contact with infected person e.g. shaking hands, kissing or hugging? | 94 (83)      | 90 (81)    | 0.854   |
| Transmissible via touching objects/surfaces that are contaminated with droplets from infected person and then touching your mouth, nose and eyes? | 102 (90)     | 102 (92)   | 0.8048  |
| Which of the following can be symptoms of the novel coronavirus?         |              |            |         |
| Fever                                                                    | 104 (92)     | 104 (94)   | 0.7817  |
| Shortness of breath                                                      | 104 (92)     | 99 (89)    | 0.6296  |
| Flu-like symptoms such as coughing, sore throat                         | 107 (95)     | 106 (95)   | 1       |
| High blood pressure                                                     | 4 (4)        | 2 (2)      | 0.6785  |
| Fatigue                                                                  | 65 (58)      | 65 (59)    | 1       |
| Diarrhea                                                                 | 35 (31)      | 24 (22)    | 0.1999  |

The results are expressed as percentages (%). N: number of participants. *: Result is significant at p ≤ 0.05.

**Table 2: Knowledge about COVID-19 by Gender**
| Question                                                                 | Response | Female: N(%) | Male: N(%) | P. Value |
|--------------------------------------------------------------------------|----------|--------------|------------|----------|
| Which measures( plans) are you taking to avoid contracting the corona virus disease. |          |              |            |          |
| Washing hands for at least 20 seconds                                    | Yes      | 106 (94)     | 105 (95)   | 1        |
| Avoiding touching eyes, nose, and mouth with unwashed hands              | Yes      | 100 (88)     | 89 (80)    | 0.177    |
| Use of disinfectants to clean hands when soap and water is not available for washing hands | Yes      | 103 (91)     | 93 (84)    | 0.1995   |
| Herbal supplements                                                       | Yes      | 8 (7)        | 2 (2)      | 0.1724   |
| Wearing a face mask                                                      | Yes      | 21 (19)      | 27 (24)    | 0.4912   |
| Avoiding crowded settings                                                | Yes      | 101 (89)     | 94 (85)    | 0.5282   |
| Using antibiotics                                                        | Yes      | 4 (4)        | NA         | 0.1297   |
| Taking food supplements                                                  | Yes      | 13 (12)      | 3 (3)      | 0.0317*  |
| Ensuring a balanced diet                                                 | Yes      | 38 (34)      | 27 (24)    | 0.1608   |
| Getting the flu shot                                                     | Yes      | 5 (4)        | 1 (1)      | 0.365    |
| Others                                                                  | Yes      | 6 (5)        | 1 (1)      | 0.2137   |
| To what extent did you exercise the following measures in the past week? |          |              |            |          |
| I attended social gatherings.                                            | Every time | 2 (2)        | 1 (1)      | 0.028*   |
|                                                                                 | Frequently | 1 (1)        | 2 (2)      |          |
|                                                                                 | Never      | 109 (96)     | 96 (86)    |          |
|                                                                                 | Sometimes  | 1 (1)        | 12 (11)    |          |
| I kept a distance of at least 1.5 meters to other people.                | Every time | 45 (40)      | 30 (27)    | 0.1291   |
|                                                                                 | Frequently | 45 (40)      | 45 (41)    |          |
|                                                                                 | Never      | 4 (4)        | 4 (4)      |          |
|                                                                                 | Sometimes  | 19 (17)      | 32 (29)    |          |
| I washed my hands more frequently than the month before.                 | Every time | 83 (73)      | 66 (59)    | 0.0163*  |
|                                                                                 | Frequently | 22 (19)      | 42 (38)    |          |
|                                                                                 | Never      | 4 (4)        | 1 (1)      |          |
|                                                                                 | Sometimes  | 4 (4)        | 2 (2)      |          |
| Do you need to leave your home in the next 5 days?                       | No        | 37 (33)      | 48 (43)    | 0.1898   |
|                                                                                 | Yes        | 76 (67)      | 63 (57)    |          |

The results are expressed as percentages (%). N: number of participants. *Result is significant at p ≤ 0.05

Table 3: Behaviour during COVID-19 by Gender
The reaction is somewhat too extreme
22 (19) 35 (32)

The reaction is much too extreme
11 (10) 7 (6)

How much do you trust your country's government to take care of its citizens?

| Strongly distrust | Somewhat distrust | Neither trust nor distrust | Somewhat trust | Strongly trust |
|-------------------|-------------------|---------------------------|----------------|---------------|
| 11 (10)           | 28 (25)           | 18 (16)                   | 40 (35)        | 16 (14)       |

How factually truthful do you think your country's government has been about the coronavirus outbreak?

| Very untruthful | Somewhat untruthful | Neither truthful nor untruthful | Somewhat truthful | Very truthful |
|-----------------|---------------------|-------------------------------|------------------|--------------|
| 19 (17)         | 46 (41)             | 27 (24)                      | 14 (12)          | 7 (6)        |

| Question | Female: N(%) | Male: N(%) | P.value |
|----------|--------------|------------|---------|
| I am nervous when I think about current circumstances | 19 (17) | 21 (19) | 0.854 |
| I am worried about my health and the health of my family | 14 (12) | 11 (10) | 0.8212 |
| I feel stressed about leaving my house | 31 (27) | 43 (39) | 0.0981 |
| I am worried about my job/business | 24 (21) | 26 (23) | 0.8645 |

At the moment, which of the following condition worries you the most (select top 3 only)

| Losing someone I love | Health system being overloaded | Schools closing | Small companies running out of business | Recession | Restricted access to food supplies | Becoming unemployed | Sleeping hungry | Others |
|-----------------------|--------------------------------|-----------------|----------------------------------------|-----------|-----------------------------------|--------------------|----------------|--------|
| 93 (82)               | 84 (74)                        | 10 (9)          | 18 (16)                                | 14 (12)   | 62 (55)                           | 38 (34)            | 15 (13)        | 5 (4)  |

The results are expressed as percentages (%). *: Result is significant at p ≤ 0.05.

| Table 4: Attitude towards COVID-19 by Gender |
|---------------------------------------------|

| Question                                | Male: N(%) | P.value |
|-----------------------------------------|------------|---------|
| To which extent do you agree with the following statements currently? |
| I am nervous when I think about current circumstances | 21 (19) | 0.854 |
| I am worried about my health and the health of my family | 11 (10) | 0.8212 |
| I feel stressed about leaving my house | 43 (39) | 0.0981 |
| I am worried about my job/business | 26 (23) | 0.8645 |

At the moment, which of the following condition worries you the most (select top 3 only)

| Losing someone I love | Health system being overloaded | Schools closing | Small companies running out of business | Recession | Restricted access to food supplies | Becoming unemployed | Sleeping hungry | Others |
|-----------------------|--------------------------------|-----------------|----------------------------------------|-----------|-----------------------------------|--------------------|----------------|--------|
| 81 (73)               | 77 (69)                        | 13 (12)         | 28 (25)                                | 28 (25)   | 47 (42)                           | 38 (34)            | 20 (18)        | 1 (1)  |

The results are expressed as percentages (%). *: Result is significant at p ≤ 0.05.

| Question                                | Male: N(%) | P.value |
|-----------------------------------------|------------|---------|
| Source of COVID-19 information           |
| Newspapers                              | 48 (43)    | 0.6662  |
| TV                                      | 97 (87)    | 0.6446  |
| Radio                                   | 51 (46)    | 0.5711  |
| SMS from Ministry of health             | 61 (55)    | 1       |
| WHO official website                    | 59 (53)    | 0.3221  |
| Social media sites such as Facebook, twitter, Instagram | 84 (76) | 1 |
| Friends and neighbors                   | 43 (39)    | 0.6604  |
| Family members                          | 37 (33)    | 0.6565  |
| Others                                  | 4 (4)      | 1       |

| Preferred mode of communication          |
| Family members                          | 2 (2)      | 0.2126  |
| Friends and neighbors                   | NA         | 0.6604  |
| Newspapers                              | NA         | 0.6565  |
| Other specify                           | 1 (1)      | 1       |

| Table 5: Emotional Feeling about COVID-19 by Gender |

The results are expressed as percentages (%). *: Result is significant at p ≤ 0.05.
Radio & 2 (2) & 6 (5) \\
SMS from Ministry of health & 29 (26) & 39 (35) \\
Social media sites such as Facebook, twitter, Instagram & 30 (27) & 31 (28) \\
TV & 30 (27) & 19 (17) \\
WHO official website & 18 (16) & 12 (11) \\

Which information do you need the most with regards to COVID-19 \\
Symptoms of novel coronavirus & 41 (36) & 57 (51) & 0.0458* \\
Personal stories from others about how they cope & 64 (57) & 46 (41) & 0.0339* \\
Scientific progress in development of a vaccine against novel coronavirus & 69 (61) & 78 (70) & 0.234 \\
Scientific progress in development of treatment for novel coronavirus & 70 (62) & 80 (72) & 0.1759 \\
How I can personally prevent spread of the disease & 54 (48) & 65 (59) & 0.1563 \\
How I can take care of a person who is in a risk group & 68 (60) & 62 (56) & 0.6673 \\
How I can best take care of my children's school education & 33 (29) & 22 (20) & 0.1884 \\
Details on travel restrictions & 25 (22) & 25 (23) & 1 \\
Others & 7 (6) & 4 (4) & 0.7456 \\

The results are expressed as percentages (%). N: number of participants *Result is significant at p ≤ 0.05

| Table 6: Sensitization and Communication on COVID-19 |

**Figure 1: Reasons for Leaving Home**

**Figure 2: Impacts of COVID-19**
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**Figure 3: Coping Mechanism**

| How are you coping with the economic impacts experienced? |
|----------------------------------------------------------|
| Unlikely to say any | 48% |
| Unlikely to make | 41% |
| Unlikely to borrow | 41% |
| Unlikely to sell | 31% |
| Unlikely to move | 17% |
| Unlikely to give | 6% |
| Unlikely to sell | 4% |
| Unlikely to send | 4% |