

Assessment of Health Status of Home Isolated COVID-19 Patients in Nepal

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Assessment of Health Status of Home Isolated COVID-19 Patients in Nepal

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Dr. Pradip Gyanwali
Executive Chief
(Member-Secretary)

Acronyms

COPD: Chronic Obstructive Pulmonary Disease

EDCD: Epidemiology and Disease Control Division

ERB: Ethical Review Board

HEOC: Health Emergency Operation Center

NHRC: Nepal Health Research Council

Executive summary

Background

The spread of novel coronavirus has resulted in the development of various psychological problems in Nepalese. Patients infected with the disease are also facing stigma and discrimination from their own family, relatives and neighbors, further leading to mental distress such as loneliness, fear, worries, anxiety and depression. This also triggers unhealthy risk behaviors such as smoking, consumption of alcohol, unhealthy eating habits, low physical activity and other lifestyle behaviors. The government of Nepal has recommended home isolation over hospital isolation. So, more than half of the patients with asymptomatic or mild symptomatic cases are at home isolation these days. This study aimed to study the health status of COVID-19 patients staying in home isolation. The findings of this study contribute to understanding the physical and mental wellbeing of COVID-19 patients and their management procedure at home.

Method and Materials

The study was carried out from the list of home isolated COVID-19 patients available from HEOC and EDCC for asymptomatic cases living in home isolation. A total of 536 COVID-19 home isolated COVID-19 patients were taken. An unstructured questionnaire was designed to be used for a telephonic survey. Home isolated COVID-19 patients covered key issues to elicit their experience as being a COVID-19 patient staying in home isolation in terms of physical, mental and social wellbeing.

Results

Sociodemographic information

1. The majority 310(57.8%) of the participants were male and 226(42.2%) were female.
2. Most 343(64%) of the participants had no travel history, some 102(19%) had travelled between municipalities or rural municipalities followed by 45(8.4%) between provinces, 43(8%) within districts and 3(1%) abroad respectively.
3. 113(21.1%) of participants had co-morbidities (Diabetes, heart disease, lung disease, TB, Asthma, HIV infection) along with COVID- 19 infection.
4. 30(5.6%) were consuming smoking before COVID-19 infection while 16(3%) were consuming smoking during COVID-19 infection.
5. 64(11.9%) were consuming Alcohol before COVID-19 infection whereas 27(4.9%) were consuming alcohol during COVID-19 infection.

Physical wellbeing (Current health status)

1. The majority 353(65.9%) of the participants were asymptomatic at the time of the interview. Among the symptomatic cases, the major symptoms were fever, cough, feeling cold weakness,

loss of taste, loss of smell, muscle pain, headache, difficulty in breathing, chest pain, sore throat, joint pain and nausea.

2. More than half 313(58.4%) of the participants reported that they felt good followed by the same as usual 187(34.9%) don't know 33(6.2%), and bad 2(0.6%).
3. Most 226(42.2%) of the participants reported very good health followed by good 210(39.2%), normal 76(14.2%), excellent 14(2.6%), bad 7(1.3%) and very bad 1(0.2%).
4. The majority 314(58.6%) of the participants were not doing any work during home isolation, followed by doing all work as before 107(20.0%) and doing normal household work 62(11.6%).

Social health (Maintaining social distance and seeking treatment)

1. More than half 281(52.5%) of the participants followed social distance among the family members which is followed by 35 percent of the participants who maintain social distance sometimes only. Likewise, 67(12.5%) participants didn't maintain social distance.
2. The majority 391(72.9%) of the participants seeking treatment for COVID-19.
3. Among the home isolated patients who were seeking treatment for COVID-19, more than half 86(59.3%) of the participants adopted home remedies followed by 43(29.6%) allopathic. Whereas, few 8(5.6%) adopted Ayurveda treatment.

Mental health status

1. More than half 312(58.2%) of the participants having some degree of a mental disturbance at some point of time during home isolation.
2. 54(10%) of the participants had very hard to wind down.
3. Few participants 6(1.2%) had mental disturbance at a good point of time.

Management of COVID-19 isolated patient

1. 110(20.5%) of the participants were facing difficulties at home isolation. Among them,
 - 47(42.8%) had the problems of a separate room.
 - 29(26.1%) unavailability of a separate toilet bathroom.
 - 22(20.7%) had difficulties in bringing groceries
 - 11(10%) had difficulties in bringing medicines
 - 6(5%) had no family support
2. Majority 514(95.9%) of the participant's family members were taking care of during home isolation.
3. Most of the participants 209(39.1%) adopted home remedies (Turmeric, water, *Gurjo*) followed by ayurvedic treatment 187(35%) during home isolation Whereas, a few 63(11.7%) adopted allopathic treatment.
4. Majority 406(75.7%) of the participants had access to transportation to a hospital in case of an emergency, whereas, 121(22.6%) had no access to transportation to a hospital in an emergency situation.

Introduction

Globally, Coronavirus disease (COVID-19) has caused a substantial increase in morbidity and mortality with more than 76 million cases and 1.7 million deaths as of 23 December, 2020[1]. COVID-19 has imposed challenges to both developed and developing countries, with the greatest impact on low and middle income countries including Nepal. As of 23 December, 2020 Nepal confirmed 2.5 lakhs cases and 1803 deaths[2]. Being low resource country, Nepal's health system is been through a lot to deal with the pandemic[3].

Some common signs and symptoms of COVID-19 are fever, cough, tiredness and complications include pneumonia, heart problems, and respiratory failure[4]. Existing evidence suggested that COVID patients with chronic diseases like hypertension, diabetes, chronic kidney diseases, COPD, tuberculosis were more prone to the increased risk of severity of disease [5,6,7,8,9]. Besides these, other high vulnerable risk groups include old aged people, pregnant women and children [10,11,12,13].

The spread of novel corona virus has resulted development of various psychological problems in Nepalese. Patients infected with the disease are also facing stigma and discrimination from their own family, relatives and neighbors, further leading to mental distress such as loneliness, fear, worries, anxiety and depression[14,15,16]. This also triggers unhealthy risk behaviors such as smoking, consumption of alcohol, unhealthy eating habits, low physical activity and other lifestyle behaviors[17,18].

Like other nations, Nepal also adopted strategies including lockdown, isolation and quarantine, social distancing and contact tracing. Recently, Nepal government has recommended home isolation over hospital isolation. So, more than half of the patients with asymptomatic or mild symptomatic cases are at home isolation these days[19]. This study aimed to study the health status of COVID-19 patients staying in home isolation. The findings of this study contribute to understanding the physical and mental wellbeing of COVID-19 patients and their management procedure at home.

Rational

In the context of the current COVID-19 outbreak, the global containment strategy includes the rapid identification of laboratory-confirmed cases and their isolation and management either in health care facilities or at home. Home care may be considered for an adult or child with confirmed or suspected COVID-19 when inpatient care is unavailable or unsafe (e.g. when capacity is insufficient to meet the demand for health-care services). Caring for an infected person in the home, rather than in a medical or other specialized facility, increases the risk of transmitting the virus to others in the home. However, government of Nepal issued stay at home who are asymptomatic or those with mild or moderate disease without risk factors for poor outcome may not require emergency interventions or hospitalization. People living in home isolation may face physical and emotional challenges and without proper management even mild symptoms could become dreadful. Given the developing situation with coronavirus, policy makers urgently needs evidence synthesis to produce guidance for the public. In circumstances such as these, rapid research is recommended by ministry of health and population for understanding the health status of people, from people's experiences during this pandemic. This evidence from this study could help the country design better plans and preventive strategies for the future.

Objective

General objective:

To assess the perceived health status of COVID-19 infected patient living in home isolation.

Specific objectives

To understand the physiological and psychological impact caused by COVID-19.

To explore the patient perceived need and barrier of medical service.

Research Methodology

Study design

A descriptive cross sectional telephone based survey design were adopted.

Study area and study participants

The study was carried out among the patients infected with COVID-19 and was home isolated. The list of COVID-19 home isolated patients were made available from EDCD. A total of 536 symptomatic and asymptomatic COVID-19 patients were taken for the quantitative study. The information was gathered from COVID-19 home isolated patients from all the seven provinces of Nepal.

Sampling and Sample size

From the list of all home-isolated COVID-19 patients made available, purposive sampling was adopted. For the study, those patients we could reach and those who were able to respond within the time frame were taken. Thus, the sample size for was a total of 536 COVID-19 home isolated patients.

Data Collection tools and techniques

An unstructured questionnaire was designed which covered key issues to elicit experience as being a COVID-19 patient staying in home isolation in terms of physical, mental and social wellbeing.

A telephonic interview was conducted by 5 enumerators.

Semi structured questionnaire were developed in English and translated into the local language (Nepali) by the experts and were rephrased in language that participants could understand.

Pretesting

Pretesting was done with three COVID-19 home isolated patients. Expert's consultation was done with subject experts and issues that need clarification or exploration were covered.

Data management and analysis

Descriptive statistics (frequency, percentage including cross-tabulation) were used to describe the health status of COVID-19 recovered patients.

Ethical consideration

Proposal was amend in the previous Proposal “Post recovery status of COVID-19 patient in Nepal” which was already submitted and ethical clearance were obtained from the Ethical Review Board (ERB) of the Nepal Health Research Council (NHRC).

Findings

Socio-demographic Characteristics

The table 1 illustrates the socio demographic information of the participants involved in this study. Out of 536 participants, more than half (57.8%) of the participants were male and 42.2 percent were female. Similarly, married and unmarried participants were 410 (76.5%) and 122(22.8%) respectively. Majorities of the participant's religion were Brahmin followed by Newar, Chhetri and Janajati. Most of the participants were Hindu, some were Buddhists and few were Muslim, Christian and others. And for the educational status, majorities of the participant i.e. 59.1% possessed higher secondary level educational qualification. Regarding the travel history, most 343(64%) of the participants didn't travelled at all. However, some 102(19%) had travelled between municipalities or rural municipalities. There were only 3 participants who had travelled from abroad.

Table: 1 Socio-demographic information

| Socio-demographic Characteristics | Frequency (n) | Percent |
|-----------------------------------|---------------|---------|
| | n=536 | |
| Gender | | |
| Male | 310 | 57.8 |
| Female | 226 | 42.2 |
| Marital status | | |
| Married | 410 | 76.5 |
| Unmarried | 122 | 22.8 |
| Separated | 0 | 0.0 |
| Single | 4 | 0.7 |
| Ethnicity | | |
| Brahmin | 227 | 42.4 |
| Chhetri | 90 | 16.8 |
| Dalit | 6 | 1.1 |
| Newar | 100 | 18.7 |
| Janajati | 89 | 16.6 |
| Other Terai caste | 15 | 2.8 |
| Muslim | 2 | 0.4 |

| | | |
|---|-----|------|
| Other | 1 | 0.2 |
| Not Known | 6 | 1.1 |
| <i>Religion</i> | | |
| Hindu | 507 | 94.6 |
| Buddhist | 23 | 4.3 |
| Muslim | 2 | 0.4 |
| Christian | 3 | 0.6 |
| Others | 1 | 0.2 |
| <i>Educational status</i> | | |
| Illiterate | 40 | 7.5 |
| Literate but no formal education | 26 | 4.9 |
| Primary level | 57 | 10.6 |
| Secondary level | 96 | 17.9 |
| Higher secondary level | 317 | 59.1 |
| <i>Travel History</i> | | |
| Travelled between countries | 3 | 0.6 |
| Travelled between provinces | 45 | 8.4 |
| Travelled between districts | 43 | 8.0 |
| Travelled between municipalities/rural municipalities | 102 | 19.0 |
| No travel | 343 | 64.0 |

Co-Morbidity Condition

Table 2 demonstrates the Co-morbid conditions among COVID-19 home isolated patients. 113(21.1%) home isolated COVID-19 patients revealed of having any kind of co-morbidity. It was found majorities of the participants having diabetes and postnatal condition along with COVID- 19 infection. Around 34% of participants were pregnant. In addition to this, few participants had Lung disease, Liver disease, Tuberculosis, Asthma, HIV and Kidney disease. One quarter of the participants had other co-morbidities like pneumonia, respiratory diseases etc.

Table: 2 Co-Morbidity Condition

| Co-morbid condition (n=536) | Frequency(Yes) | Percent |
|------------------------------------|-----------------------|----------------|
| | 113 | 21.1 |

| Types of Diseases (n=113) | | |
|----------------------------------|----|------|
| Diabetes | 66 | 45.8 |
| Heart disease | 38 | 26.4 |
| Lung disease | 6 | 4.2 |
| Liver disease | 2 | 1.4 |
| Tuberculosis | 1 | .7 |
| Asthma | 8 | 5.6 |
| HIV infection | 3 | 2.1 |
| Kidney disease | 2 | 1.4 |
| Pregnancy | 49 | 34.0 |
| Postnatal women | 66 | 45.8 |
| Others | 38 | 26.4 |

Smoking and Alcohol Consumption Behaviors

Table 3 presents the information about the participants regarding smoking and alcohol intake before and during COVID 19 infection. Almost 6 percent and 12 percent of the patients reported smoking and alcohol consumption respectively before they were diagnosed with COVID 19. However, smoking and alcohol consumption behavior has decreased to 3 percent and 4.9 percent respectively during COVID 19 infection.

Table: 3 Smoking and Alcohol Consumption Behaviors

| Smoking and Alcohol Consumption Behaviors (n=536) | Frequency | Percent |
|--|------------------|----------------|
| Before COVID-19 infection | | |
| Smoking | 30 | 5.6 |
| Alcohol consumption | 64 | 11.9 |
| After COVID-19 infection | | |
| Smoking | 16 | 3.0 |
| Alcohol consumption | 26 | 4.9 |

Physical well being

Current health status

Majority (65.9%) of the participants were asymptomatic at the time of interview.

Table: 4 Current health Condition

| Characteristics (n=536) | Frequency | Percent |
|-------------------------|-----------|---------|
| Symptomatic | 183 | 34.1 |
| Asymptomatic | 353 | 65.9 |

Clinical Manifestation during COVID-19 infection

The most common symptoms were fever (22.6%), cough (19.4%), cold (16.1%), weakness (11.4%) and loss of taste (10.4%). other symptoms were loss of smell (9.9%), muscle pain (8.2%), headache (7.3%), difficulty in breathing (5.2%), chest pain (3.7%), sore throat(2.8%) joint pain(2.4%) and nausea (1.7%).

Table: 5 Clinical Manifestation

| Characteristics (n=536) | Frequency | Percent |
|-------------------------|-----------|---------|
| Fever | 121 | 22.6 |
| Cold | 86 | 16.1 |
| Cough | 104 | 19.4 |
| Muscle pain | 44 | 8.2 |
| Loss of taste | 56 | 10.4 |
| Loss of smell | 53 | 9.9 |
| Chest pain | 20 | 3.7 |
| Weakness | 61 | 11.4 |
| Difficulty in breathing | 28 | 5.2 |
| Diarrhea | 9 | 1.7 |
| Nausea | 9 | 1.7 |
| Headache | 39 | 7.3 |

| | | |
|---------------------------|----|-----|
| Irritation | 2 | 0.4 |
| Sore throat | 15 | 2.8 |
| Stomach ache | 2 | 0.4 |
| Joint pain | 13 | 2.4 |
| Others | 5 | 0.9 |
| Multiple response* | | |

Feeling about symptoms

When asked about feeling about symptoms, majority of the participants (58.4%) reported that they felt good followed by same as usual (34.9%), don't know (6.2%), and bad (0.6%)

Table 6: Feeling about Symptoms

| Characteristics (N=536) | Frequency | Percent |
|-------------------------|-----------|---------|
| Same as usual | 187 | 34.9 |
| Good | 313 | 58.4 |
| Bad | 3 | 0.6 |
| Don't know | 33 | 6.2 |

Perceived health status

Participants were asked to rate their health as excellent, very good, good, normal, bad and very bad. Most (42.2%) of the participants reported very good health followed by good (39.2%), normal (14.2%), excellent (2.6%), bad (1.3%) and very bad (0.2%).

Table: 7 Perceived health Status

| Characteristics(n=536) | Frequency | Percent |
|------------------------|-----------|---------|
| Excellent | 14 | 2.6 |
| Very good | 226 | 42.2 |
| Good | 210 | 39.2 |
| Normal | 76 | 14.2 |
| Bad | 7 | 1.3 |

| | | |
|----------|---|-----|
| Very bad | 1 | 0.2 |
| Others | 2 | 0.4 |

Diet consumption

There were 67.7 percent of participants who reported that they were consumed excess amount of nutritious food during home isolation. Additionally, 53.5 percent and 43.7 percent of participants reported that they were consumed excess amount of liquid food and diet consumption, normal as usual respectively.

Table: 8 Diet Consumption

| Characteristics (n=536) | Frequency | Percent |
|-----------------------------------|-----------|---------|
| Diet consumption, normal as usual | 234 | 43.7 |
| Excess amount of nutritious food | 363 | 67.7 |
| Excess amount of liquid food | 287 | 53.5 |
| Multiple response * | | |

Daily household activities

Majority (58.6%)of the participants were not doing any work during home isolation , followed by doing all work as before (20.0%) doing normal household work(11.6%) and others (9.8).

Table: 9 Daily Household Activities

| Characteristics (n=536) | Frequency | Percent |
|-----------------------------|-----------|---------|
| Doing normal household work | 62 | 11.6 |
| Doing all work as before | 107 | 20.0 |
| Not doing any work | 314 | 58.6 |
| Others | 53 | 9.8 |

Financial activities

The majority of the participants (85.4%) were financially inactive during the home isolation. However, almost 15 percent were doing some kind of financial activities.

Table: 10 Financial Activities

| Financial activities (n=536) | Frequency | Percent |
|------------------------------|-----------|---------|
| Yes | 78 | 14.6 |
| No | 458 | 85.4 |

Frequency of going out of home during isolation

Almost all (96.6%) of the participant had never gone outside during home isolation. However, almost 3 percent of them went outside sometimes and 4 of them revealed going outside the home regularly even during isolation.

Table: 11 Frequency of going out of home during isolation

| Characteristics (n=536) | Frequency | Percent |
|-------------------------|-----------|---------|
| Yes, regularly | 4 | 0.7 |
| yes, sometime | 14 | 2.6 |
| Never | 518 | 96.6 |

Home isolation and the reasons for having the difficulty

Majorities (79.5%) of the participants stated of not having any difficulties to home isolate, whereas almost 20 percent had difficulties to stay at home during COVID -19.

Among the participants who had difficulties during home isolation, almost half (42.8%) of the participants had the problems of separate room followed by the 26.1 percent participants having unavailability of the separate toilet bathroom. Similarly, only 20.7 percent had difficulties in bringing groceries from outside. However, almost 2 percent revealed of not having family support.

Table: 12 Home isolation and the reasons for having the difficulty

| Ease to home isolate n(536) | Frequency | Percent |
|---|------------------|----------------|
| Yes | 426 | 79.5 |
| No | 110 | 20.5 |
| Reasons for difficulty in home isolation n=110 | | |
| Unavailability of the separate room | 151 | 42.8 |
| Unavailability of cross ventilation | 20 | 5.7 |
| Unavailability of separate toilet bathroom | 92 | 26.1 |
| Difficulties in bringing groceries | 73 | 20.7 |
| Difficulties in bringing medicines | 11 | 3.1 |
| No family support | 6 | 1.7 |

Management of problems faced while during home isolation

Among the participants having trouble to home isolate were further questioned for its management. Participants mentioning unavailability of separate toilet said as they had common toilet, they used to sanitize the toilet after use. Some of them even said that they used to clean the toilet with boiling water since disinfectant were not available. Participants not having separate rooms managed by using gloves, sanitizer and mask and sanitize everything once used by infected person. They further added though they lived in the same room they maintained social distance in the room.

Family members to take care during home isolation

A total of 514(95.9%) of the participants had family member to take care of them during home isolation, However, 22 (4.1%) didn't have any one to take care of.

Social distancing with family members during home isolation

Regarding maintaining social distancing with family members, majorities (88.4%) of the participants always followed social distancing. However, almost 10 percent of the participants

maintained the social distance sometimes only. And almost 2 percent of the participants never maintained social distance during isolation at home.

Table: 13 social distancing with family members during home isolation

| Maintain social distance (n=536) | Frequency | Percent |
|----------------------------------|-----------|---------|
| Yes, Always | 474 | 88.4 |
| Yes, Sometimes | 52 | 9.7 |
| Never | 10 | 1.9 |

Treatment during Home Isolation

Most of participants (39.1%) adopted home remedies followed by the ayurvedic treatment (35%) as a treatment during home isolation whereas, almost 12 percent adopted allopathic treatment. Moreover, among the participants adopting home remedies 34.3 percent of the participant consumed turmeric water followed by the 32.4 percent of the participants who consumed *Gurjo*. Similarly, there were 17.8 percent participant who added they consumed fruits containing vitamin C and 15.4 percent performed steaming as a home remedies.

Among the participants who used allopathic medicine, almost half of the participants (47.9%) consumed antibiotics followed by the 12.20 percent of the participants who had oral rehydration solution. Whereas, almost 11 percent of the participants took analgesic and antihistaminic throughout home isolation and least (3.8%) of them took cough syrup

Table: 14 Treatment during home isolation

| Treatment during home isolation(n=536) | Frequency | Percent |
|--|-----------|---------|
| Home remedies | 393 | 39.1 |
| Ayurvedic | 352 | 35.0 |
| Allopathic | 112 | 11.1 |
| Others | 148 | 14.7 |
| *Multiple response | | |

| Home remedies during home isolation (n=393) | | |
|---|-----|------|
| Steaming | 137 | 15.4 |
| consumption of turmeric water | 305 | 34.3 |
| Consumption of <i>Gurjo</i> | 288 | 32.4 |
| Others | 158 | 17.8 |
| *Multiple response | | |
| Allopathic treatment during home isolation (n=112) | | |
| Antibiotic | 315 | 47.9 |
| Analgesic | 70 | 10.6 |
| Antipyretic | 44 | 6.7 |
| Antihistaminic | 70 | 10.6 |
| Cough syrup | 25 | 3.8 |
| ORS | 80 | 12.2 |
| Supplements | 46 | 7.0 |
| Others | 8 | 1.2 |
| *Multiple response | | |

Availability of materials to be used for COVID-19

Regarding the materials available with COVID-19 home isolated patients, almost 20 percent of them said that they had thermometer and the same percent stated having mask as well. This is followed by the 16.7 percent participants who had faceguard and 16.2 percent having disinfectant at home. Only about 12 percent of them said that they had oxymeter with them.

Table: 15 Availability of materials at home

| Availability of materials at home (n=536) | Frequency | Percent |
|--|------------------|----------------|
| Face guard | 380 | 16.7 |
| Oxymeter | 266 | 11.7 |
| Sanitizer | 339 | 14.9 |
| Thermometer | 465 | 20.4 |
| Mask | 462 | 20.2 |

Access to Transportation in emergency case

Majorities (75.7%) of the participants had access to the transportation to hospital in case of the emergency, whereas, almost 23 percent had no access to the transportation to hospital in emergency situation.

Table: 16 Access to Transportation

| Access to transportation (n=536) | Frequency | Percent |
|----------------------------------|-----------|---------|
| Yes | 406 | 75.7 |
| No | 121 | 22.6 |
| Don't know | 9 | 1.7 |

Regular Advice from Health Worker

Majority (77.6%) of the participant seek advice regularly form the health worker, followed by the (21.3%) participants who seek advice for some time only. Likewise, few (1.1 %) didn't seek any advice from heath worker.

Table: 17 Seeking Regular Advice from Health Worker

| Regular advice from Health worker | Frequency | Percent |
|-----------------------------------|-----------|---------|
| Yes, Always | 416 | 77.6 |
| Yes, Sometimes | 114 | 21.3 |
| Never | 6 | 1.1 |

Mental Health status

Regarding mental health status, 21 questions were asked to assess the mental health status of COVID-19 home isolated patients. It was found most of the respondents didn't had any form of mental disturbance when isolated during COVID-19 infection. However, More than 50 percent of the respondent revealed of having some degree of mental disturbance at some point of time. Moreover, few respondent had mental disturbance at a good point of time. It is also stated by almost 10 percent of the respondent that it very hard to wind down for them for most of the time. Conversely, majorities stated of not having very much mental disturbance most of the time.

| Mental Health Status | Did not apply to me at all | Applied to me to some degree, or some of the time | Applied to me to a considerable degree or a good part of time | Applied to me very much or most of the time |
|--|----------------------------|---|---|---|
| I found it hard to wind down | 11(2.1) | 312(58.2) | 157(29.3) | 56(10.4) |
| I was aware of dryness of my mouth | 188(35.1) | 312(58.2) | 30(5.6) | 6(1.1) |
| I couldn't seem to experience any positive feeling at all | 192(35.8) | 323(60.3) | 18(3.4) | 3(0.6) |
| I experienced breathing difficulty (e.g. excessively rapid breathing breathlessness in the absence of physical exertion) | 196(36.6) | 325(60.6) | 12(2.2) | 3(0.6) |
| I found it difficult to work up the initiative to do things | 197(36.8) | 313(58.4) | 24(4.5) | 2(0.4) |
| I tended to overreact to situation | 205(38.2) | 323(60.3) | 8(1.5) | 0(0.0) |
| I experienced trembling | 204(38.1) | 320(59.7) | 12(2.2) | 0(0.0) |
| I felt that I was using a lots of nervous energy | 203(37.9) | 322(60.1) | 11(2.1) | 0(0.0) |
| I found it difficult to relax | 207(38.6) | 309(57.6) | 17(3.2) | 3(0.6) |
| I was worried about situation in which I might panic | 206(38.4) | 318(59.3) | 11(2.1) | 1(0.2) |
| I felt that I had nothing to look forward to | 205(38.2) | 315(58.8) | 15(2.8) | 1(0.2) |
| I found myself getting agitated | 205(38.2) | 317(59.1) | 13(2.4) | 1(0.2) |
| I felt down-hearted and blue | 205(38.2) | 319(59.5) | 12(2.2) | 0(0.0) |
| I was intolerant of anything that kept me from getting on with was it was going | 207(38.6) | 322(60.1) | 7(1.3) | 0(0.0) |
| I felt I was close to panic | 206(38.4) | 323(60.3) | 7(1.3) | 0(0.0) |
| I was unable to become enthusiastic about | 205(38.2) | 318(59.3) | 13(2.4) | 0(0.0) |



| anything | | | | |
|---|-----------|-----------|-----------|--------|
| I felt I wasn't worth much as a person | 207(38.6) | 320(59.7) | 12(2.2) | 0(0.0) |
| I felt that I was rather touchy | 204(38.1) | 320(59.7) | 320(59.7) | 0(0.0) |
| I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat) | 243(45.3) | 286(53.4) | 7(1.3) | 0(0.0) |
| I felt scared without any good reason | 360(67.2) | 169(31.5) | 7(1.3) | 0(0.0) |
| I felt that life was meaning less | 360(67.2) | 173(32.3) | 3(0.6) | 0(0.0) |

Recommendation

1. Should promote the physical activities related to intervention within home isolation.
2. Social distance should be maintained within or outside the home isolation.
3. Aware of family members for taking care of COVID-19 isolated patients.
4. Should facilitate the appropriate treatment including home remedies.
5. Assurance of food, groceries and daily utensils within home isolation.
6. Maintain access to transportation to a hospital in case of an emergency.

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Annex: Tools

**Ministry of Health and Population
Nepal Health Research Council
Ramshahpath
Kathmandu, Nepal**

**नेपालमा COVID-19/कोरोनाभाइरबाट संक्रमितभई होम आईसोलेसनमा बसिरहेका बिरामीहरूको
स्वास्थ्य अबस्था सम्बन्धी अध्ययन अनुसन्धान**

सामाजिक र जनसांख्यिकीय विवरण

पूरा नाम.....

सम्पर्क नं.....

स्थायी ठेगाना

प्रदेश.....जिल्ला.....

गाउँपालिका/नगरपालिका.....वडा नं.....

टोल.....

अस्थायी ठेगाना

प्रदेश.....जिल्ला.....

गाउँपालिका/नगरपालिका.....वडा नं.....

टोल.....

परीक्षण गरेको मिति परीक्षण गरेको स्थान

आईसोलेसनमा बसिरहेको अबधि

| क्र सं | प्रश्नावाली | उत्तर | स्कीप |
|--------|-------------|-------|-------|
|--------|-------------|-------|-------|

| क्र सं | प्रश्नावाली | उत्तर | स्कीप |
|--------|-------------------|--|-------|
| १ | लिंग | महिला.....१ पुरुष.....२ नतोकिएको / थाहानभएको३ | |
| २ | उमेर | वर्ष | |
| ३ | वैवाहिक स्थिति | विवाहित.....१ अविवाहित.....२ छुट्टिएको३ एकल.....४ | |
| ४ | जाती | बहुन.....१ क्षत्री.....२ दलित.....३ नेवार४ जनजाती.....५ मुस्लिम.....६ अन्य तराई जाती७ अन्य.....८८ थाहानभएको.....९९ | |
| ५ | धर्म | हिन्दु.....१ बुद्धिष्ट२ मुस्लिम.....३ इशाई४ अन्य भए खुलाउने.....८८ | |
| ६ | शैक्षिक स्तर | अशिक्षित.....१ साक्षर तर औपचारिक शिक्षा नभएको.....२ प्राथमिकशिक्षा (१ देखि ७).....३ माध्यमिक शिक्षा (८देखि १०).....४ उच्च शिक्षा.....५ अन्य(खुलाउने).....८८ | |
| ७ | पेशा | स्वास्थ्यकर्मीको रूपमाकार्यरत.....१ माइक्रोबायोलोजी प्रयोगशालामा कार्यरत.....२ अन्य पेशामा कार्यरत.....३ | |
| ८ | यात्रा गरेको ठाउँ | विदेश.....१ अन्तर प्रदेश.....२ अन्तर जिल्ला.....३ अन्तर नगरपालिका वा गाउँपालिका.....४ यात्रा नगरेको.....५ | |

तपाईंलाई स्वास्थ्यसँग सम्बन्धित कुनै अबस्था, समस्या वा रोगहरु केही छन्?

| क्र सं | प्रश्नावली | उत्तर | | | | स्कीप |
|--------|-------------------|----------------------------|------------|--------------------------------|------------|-------|
| | | छ (१) | | छैन (२) | | |
| १ | मधुमेह | | | | | |
| २ | मुटु रोग | | | | | |
| ३ | जटिल फोक्सोको रोग | | | | | |
| ४ | जटिल कलेजोको रोग | | | | | |
| ५ | सक्रिय क्षयरोग | | | | | |
| ६ | दम | | | | | |
| ७ | एचआईभी संक्रमण | | | | | |
| ८ | मृगौलाको रोग | | | | | |
| ९ | गर्भावस्था | | | | | |
| १० | सुत्केरी अवस्था | | | | | |
| ११ | अन्य | | | | | |
| १२ | कुनै पनि छैन | | | | | |
| | प्रश्नावली | कोरोना भाइरसको संक्रमण अघि | | कोरोना भाइरसको संक्रमण अबधि भर | | |
| | | गर्छु (१) | गर्दिन (२) | गर्छु (१) | गर्दिन (२) | |
| ९ | धुम्रपान सेवन | | | | | |
| १० | मद्यपान सेवन | | | | | |

Physical well being related questions

| क्र सं | प्रश्नावली | उत्तर | स्कीप |
|--------|---|---|-------|
| १ | तपाइको वर्तमान स्वास्थ्य अवस्था कस्तो छ? | लक्षण भएका१ लक्षण नभएको २ | |
| २ | यदि लक्षण छन् भने के के लक्षणहरु देखिएका छन् (Multiple response) | ज्वरो.....१ रुघा..... २ खेकी..... ३ मांसपेशी दुख्ने ४ स्वाद हराउने ५ गन्ध हराउने ६ छाती दुख्न ७ कमजोरी ८ स्वास फेर्न गाह्रो..... ९ पखाला १० वाकवाक लाग्नु ११ टाउको दुख्ने १२ भर्को लाग्नु १३ घाँटी दुख्ने १४ | |

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| | | पेट दुख्ने१५ जोनी दुख्ने१६ अन्य..... ८८ | |
| ३ | तपाईंको लक्षणहरु कस्तो हुँदै छन् | उस्तै छ१ राम्रो२ नराम्रो३ थाहा छैन४ | |
| ४ | तपाईंले आफ्नो स्वास्थ्य स्थितिलाई कसरी मापन गर्नुहुन्छ | अति नै राम्रो१ धेरै राम्रो२ राम्रो३ ठिकै४ नराम्रो५ धेरै नराम्रो६ | |
| | तपाईंले संक्रमणको अवस्थामा कस्तो प्रकारको खानेकुरा खानू भइरहेको छ? | सधैँभै सामान्य खानेकुरा.....१ बडी मात्रामा पोषिलो खानेकुरा (जस्तै: खुलाउने) ...२ बडी मात्रामा तरल पदार्थ ३ अन्य (खुलाउने)८८ | |
| ५ | तपाईंले घर भित्रको कामकाज (खानापकाउन, लुगा धुन, घर सफा गर्न वा अन्य घरायसी दैनिक कामकाज) गरिरहनु भएका छ? | सामान्य कामकाज गरिरहेको छु.....१ पहिलेजस्तै सबैकाम गरिरहेको छु..... २ कुनै पनि घरयेसी काम गरिरहेको छैन.....३ अन्य (खुलाउने) ८८ | |
| ६ | तपाईंले आर्थिक आयआर्जन को क्रियाकलाप (व्यापार व्यवसाय, कार्यालयमा काम गर्न, दैनिक आयआर्जनको कामकाज) गरिरहनु भएका छ? | गरिरहेको छु.....१ गरिरहेको छैन..... २ | |
| ७ | यदि गरिरहनु भएको छ भने के के (व्यापार व्यवसाय, कार्यालयमा काम गर्न, दैनिक आयआर्जनको | | |

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| | कामकाज) गरिरहनु भएका छ? | | |
| ८ | तपाईं आइसोलेशनको बेला घर देखि बाहिर गईरहनु भएको छ? | सधैं गईरहन्छु..... १ कहिलेकाहिँ जान्छु..... २ कहिलेपनि गएकोछैन..... ३ | |
| ९ | यदि बाहिर गईरहनु भएको छ भने के कामको लागि गईरहनु भएको छ | | |

व्यवस्थापन सम्बन्धी प्रश्नावली

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| १. तपाईंलाई घरमा आईसोलेसनमा बस्न सहज छ या छैन ? | छ १ छैन २ | |
| २. यदि छैन भने के के समस्याहरु भएको छ । (Multiple response) | छुट्टै कोठाको व्यवस्था नहुनु १ Cross ventilation को अभाव २ छुट्टै toilet/bathroom को अभाव ३ खाद्य सामग्री घरमा ल्याउन असुविधा ४ औषधि सामग्री घरमा ल्याउन असुविधा ५ परिवारबाट साथ सहयोग नभएको ६ अन्य (खुलाउने) ८८ | |
| ३. ति समस्याहरुको कसरी व्यवस्थापन गर्नु भएको छ । | | |
| ३. तपाईंको हेरचाह गर्न घरमा अन्य सदस्यहरु हुनुहुन्छ | छ १ छैन २ | |
| ४ यदि छ भने ऊँहाहरु संग दुरी कायम गरी बस्नु भएको छ ? | छ सधैं १ कहिलेकहिँ मात्र २ छैन ३ | |
| ५. के तपाईं कोरोनाको लागि कुनै उपचार लिदै हुनुहुन्छ ? | छ १ छैन २ | |
| ६.यदि छ भने कस्तो खालका उपचार ?(Multiple response) | घरेलु उपचार १ आयुर्वेदिक २ औषधि उपचार ३ अन्य (खुलाउने) ८८ | |
| ७.कस्तो प्रकारको घरेलु उपचार ? | बाफ लिने १ बेसार पानी खाने २ गुर्जो खाने ३ अन्य (खुलाउने) ८८ | |
| ८.कस्तो प्रकारको औषधि | Antibiotic १ Analgesic २ Antipyretic ३ Antihistaminic ४ Cough syrup ५ ORS ६ Supplements ७ others ८ | |
| ९.के तपाईंलाई संक्रमण रोकथामको लागि निम्न आधारभूत स्वास्थ्य सामग्रीहरु उपलब्ध छन् । | Face guard १ Oxymetre २ Sanitizer ३ | |

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| | Thermometer ४ Mask ५ Disinfectant ६ अन्य (खुलाउने)..... ८८ | |
| १०. आकस्मिक उपचारको आवश्यकता पर्दा के तपाईसँग यातायातको पहुँच छ | छ १ छैन २ थाहा छैन ३ | |
| ११ तपाईले स्वास्थ्यकर्मी संग नियमित रूपमा आफ्नो स्वास्थ्य स्थिति बारे सम्पर्क राखिराख्नु भएको छ? | सधैँ सम्पर्क हुन्छ..... १ कहिलेकाही सम्पर्क हुन्छ..... २ कहिलेपनि सम्पर्क भएको छैन..... ३ | |

मनासिक स्वास्थ्य सम्बन्धि प्रश्नावाली (Mental health status)

| क्र सं | प्रश्नावाली | उत्तर | | | |
|--------|---|--------------------------|------------------------|--------------------|---------------------|
| | | कहिल्यै पनि भएको छैन (१) | कुनै हदसम्म भएको छ (२) | अलि बढी भएको छ (३) | एकदम बढी भएको छ (४) |
| १ | मलाई तनाव मुक्त हुन गाह्रो छ | | | | |
| २ | मलाई मेरो मुख सुकेको आभास हुन्छ | | | | |
| ३ | मैले कुनै पनि सकारात्मक कुराको अनुभूति गर्दिन | | | | |
| ४ | मलाई स्वास प्रस्वासमा गाह्रो हुन्छ (छिटो सास फेर्ने, शारीरिक श्रम नहुदा सास फुल्ने) | | | | |
| ५ | मलाई केहि काम गर्नको लागि सुरुवात गर्न गाह्रो हुन्छ | | | | |
| ६ | मैले कुनै परिस्थितिलाई चाहे भन्दा धेरै प्रतिक्रिया दिने प्रवृत्ति छ | | | | |
| ७ | म काँपेको अनुभव गर्छु जस्तै हातमा | | | | |
| ८ | मलाई धेरै अतालिएको जस्तो महसुस हुन्छ | | | | |
| ९ | म त्यो परिस्थितिको बारेमा धेरै चिन्तित थिए जसमा मा अतालिएर मैले बेबकुफी गरे | | | | |
| १० | मलाई लाग्छ कि मैले भविष्यमा हेर्न पर्ने की छैन | | | | |
| ११ | मैले आफुलाई उत्तेजित भएको पाउछु | | | | |

| | | | | | |
|----|--|--|--|--|--|
| १२ | मलाई आराम गर्न गाह्रो हुन्छ | | | | |
| १३ | मैले आफुलाई दुखि र हतास महसुस गर्थे | | | | |
| १४ | मैले गरिराखेको काममा कसैले खलल गरेको मा सहन सकिदैन | | | | |
| १५ | मैले आतंकित भएको आभास गरे | | | | |
| १६ | म केहि कुरामा पनि उत्साहित हुन सकिदैन | | | | |
| १७ | मलाई लाग्छ कि म योग्य मानिस होइन | | | | |
| १८ | मलाई लाग्छ कि म चिड्चिडा प्रवृत्तिको छु | | | | |
| १९ | शारीरिक परिश्रम नगर्दा पनि मैले आफ्नो मुटु धड्केको महसुस गर्थे मुटु धेरै धड्कने वा रोक्किन | | | | |
| २० | मलाई बिना कारण डर लाग्छ | | | | |
| २१ | मलाई लाग्छ कि जिन्दगी बेकार हो | | | | |

के तपाईं अन्त्यमा केहि भन्न चाहनुहुन्छ ?

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