

BMJ Open is committed to open peer review. As part of this commitment we make the peer review history of every article we publish publicly available.

When an article is published we post the peer reviewers' comments and the authors' responses online. We also post the versions of the paper that were used during peer review. These are the versions that the peer review comments apply to.

The versions of the paper that follow are the versions that were submitted during the peer review process. They are not the versions of record or the final published versions. They should not be cited or distributed as the published version of this manuscript.

BMJ Open is an open access journal and the full, final, typeset and author-corrected version of record of the manuscript is available on our site with no access controls, subscription charges or pay-per-view fees (<u>http://bmjopen.bmj.com</u>).

If you have any questions on BMJ Open's open peer review process please email <u>info.bmjopen@bmj.com</u>

BMJ Open

Perceptions regarding COVID-19 among public and their experiences during the COVID-19 pandemic in Nepal: A Qualitative Study

Journal:	BMJ Open
Manuscript ID	bmjopen-2020-043312
Article Type:	Original research
Date Submitted by the Author:	31-Jul-2020
Complete List of Authors:	Bhatt, Navin; Nyaya Health Nepal, Bayalpata Hospital Bhatt, Bandana; Government of Nepal Ministry of Health and Population, Department of Health Services Gurung, Soniya; Tribhuvan University Institute of Medicine, Central Department of Public Health Dahal, Suresh; BP Koirala Institute of Health Sciences Jaishi, Amrit; BP Koirala Institute of Health Sciences Neupane, Bandana; Government of Nepal Ministry of Health and Population, Nepal Health Sector Support Programme (NHSSP)/DFID Budhathoki, Shyam; Golden Community
Keywords:	Public health < INFECTIOUS DISEASES, COVID-19, INFECTIOUS DISEASES

SCH	OL	ARC	DNE	ы
M	an	uscr	ipts	



I, the Submitting Author has the right to grant and does grant on behalf of all authors of the Work (as defined in the below author licence), an exclusive licence and/or a non-exclusive licence for contributions from authors who are: i) UK Crown employees; ii) where BMJ has agreed a CC-BY licence shall apply, and/or iii) in accordance with the terms applicable for US Federal Government officers or employees acting as part of their official duties; on a worldwide, perpetual, irrevocable, royalty-free basis to BMJ Publishing Group Ltd ("BMJ") its licensees and where the relevant Journal is co-owned by BMJ to the co-owners of the Journal, to publish the Work in this journal and any other BMJ products and to exploit all rights, as set out in our <u>licence</u>.

The Submitting Author accepts and understands that any supply made under these terms is made by BMJ to the Submitting Author unless you are acting as an employee on behalf of your employer or a postgraduate student of an affiliated institution which is paying any applicable article publishing charge ("APC") for Open Access articles. Where the Submitting Author wishes to make the Work available on an Open Access basis (and intends to pay the relevant APC), the terms of reuse of such Open Access shall be governed by a Creative Commons licence – details of these licences and which <u>Creative Commons</u> licence will apply to this Work are set out in our licence referred to above.

Other than as permitted in any relevant BMJ Author's Self Archiving Policies, I confirm this Work has not been accepted for publication elsewhere, is not being considered for publication elsewhere and does not duplicate material already published. I confirm all authors consent to publication of this Work and authorise the granting of this licence.

reliez oni

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

PERCEPTIONS REGARDING COVID-19 AMONG PUBLIC AND THEIR **EXPERIENCES DURING THE COVID-19 PANDEMIC IN NEPAL: A QUALITATIVE STUDY**

Navin Bhatt^{1*}, Bandana Bhatt², Soniya Gurung³, Suresh Dahal⁴, Amrit Raj Jaishi⁴, Bandana Neupane⁵, Shyam Sundar Budhathoki⁶

¹Nyaya Health Nepal, Bayalpata Hospital, Achham, Nepal

² Department of Health Services, Ministry of Health and Population, Kathmandu, Nepal

³ Central Department of Public Health, Institute of Medicine, Tribhuvan University, Kathmandu, Nepal

⁴B.P. Koirala Institute of Health Sciences, Dharan, Nepal

⁵Nepal Health Sector Support Programme (NHSSP)/DFID/Ministry of Health and Population,

Kathmandu, Nepal

⁶Golden Community, Lalitpur, Nepal

*Corresponding Author

Dr. Navin Bhatt

Possible) Bayalpata Hospital (Nyaya Health Nepal/Possible)

Sanfegabar-07, Achham, 10705, Nepal

Email: n.navin.bhatt@gmail.com

Word Count: 7722

ABSTRACT

Objectives

The perception among the people regarding the COVID-19 is a key factor that influences people's behavior towards the disease including the uptake of preventive and curative health services. Understanding its perception among people would help the government to plan appropriate strategies. Therefore, this study intends to explore the perception of people towards COVID-19 and their experiences during the pandemic in Nepal.

Design, Setting and Participants

A qualitative study was conducted among the people from diverse backgrounds in Kathmandu, Kanchanpur, Bajura, and Jhapa districts of Nepal. Eight focus group discussions and 40 in-depth interviews were conducted by using a maximum variation sampling method. Colaizzi's phenomenological analysis method was adopted to analyze the data.

Results

The themes generated are as follows: About COVID-19, prevention of disease, source of information, expectation and challenges, and effects of COVID-19, social distancing and lockdown. People possessed good knowledge about COVID-19 and they believed that the use of masks, sanitizers, handwashing, and proper lockdown would help to prevent the disease. They also expressed vital role of media in increasing awareness. However, misinformation spread by some media, in addition to lack of social interaction, isolation, economic loss had some psychological impacts. Challenges perceived were: Inadequate Personal Protective Equipment (PPE), unprepared health system, higher expectations from the public, poor quarantine management, and violation of lockdown.

Conclusions

There is a need to provide adequate knowledge and the right information by the media to reduce misinformation regarding COVID-19. The awareness campaign, need for professional psychological counseling, systematic lockdown, the supply of adequate PPE, and strengthening the health system would reduce the impact of COVID-19 among people in the long run.

KEYWORDS: COVID-19 in Nepal, social distancing and lockdown, social discrimination and stigma, psychological impact, qualitative study

STRENGTHS AND LIMITATIONS:

- Representation of participants from diverse backgrounds
- A large number of participants interviewed in a short period of time abiding preventive measures and safety guidelines
- Pioneer qualitative study exploring perceptions of general public on COVID-19 in Nepal
- Children and the elderly population excluded from the study due to the possibility of increased risk of COVID-19
- Hesitancy for participants to participate in the focus group discussions due to different stages of lockdown and disease outbreak in different parts of the country

eller

INTRODUCTION

The Coronavirus disease 2019 or COVID-19 is a newly discovered infectious disease, first seen in December 2019 at Wuhan city of Hubei province, Central China. A rapid spread with a high transmission rate and substantial deaths have been observed worldwide affecting 216 countries, areas or territories already [1, 2]. The World Health Organization (WHO) declared the COVID-19 outbreak as a global pandemic on March 11, 2020 [3]. In Nepal, the first case was confirmed on 23rd January 2020. The total cases reached 19547 as of July 30, 2020, with 52 mortalities [4].

Countries around the world are implementing different measures, from local quarantines to travel restrictions, to prevent wide spread of the virus [5]. The Government of Nepal has also enforced strict national lockdown, closed international borders, and halted both national and international flights. People are urged to stay at home maintaining social distance [6]. The unintended effects among people at all levels are many, ranging from anxiety/stress to reduced freedom on daily

living, and from fear of unknown to loss of income sources [7]. It has been reported that strict and long duration lockdown has various effects such as effects on maternity services and rise in maternal deaths, effects on mental health and rise in suicide cases, effects on children and adolescents, rise in domestic violence, impact on routine health services like child health and immunization, impacts on logistics and supply management, and impacts on farming [8].

The future trajectory of the COVID-19 epidemic largely depends on the behavior of people [9]. Exploring people's attitudes and perceptions towards disease, its transmission, risk factors, preventive methods, and health-seeking behavior play an important role in developing strategies to address similar pandemics in the future [10, 11]. However, very little is known regarding the perception people have regarding COVID-19 and its effects following the outbreak. Hence, this study aims to explore people's perceptions towards COVID-19 and their experiences during the pandemic in Nepal.

METHODS:

Selection of study sites

Based on proximity to greater risk factors of an outbreak in Nepal, and, to include diverse population from different geographical regions of Nepal, Kathmandu, Kanchanpur, Bajura and Jhapa districts were selected. The location of the study sites selected purposively in different districts is listed in Table 1.

Province Districts		Municipality	Ward	Local address
			number	
Bagmati	Kathmandu	Kathmandu	7	Chabahil
Pradesh		Metropolitan City		
Sudurpashchim	Kanchanpur	Bhimdatt	2	Mahuliya/Ultakham
Pradesh		Municipality		
Sudurpashchim	Bajura	Budhiganga	5	Thuma
Pradesh		Municipality		
Province	Jhapa	Mechinagar	11	Dhaijan
Number 1		Municipality		

Study Population and sampling technique

The participants that represented diverse backgrounds in terms of gender, profession, education, geography, and social status, were selected using a maximum variation sampling method. As per the regulation by the Government of Nepal to prohibit the large gathering of people at a place as a preventive measure for the COVID-19 outbreak, each focus group discussions (FGD) consisted of 6 people who were placed at a one-meter distance to each other. Additionally, face masks were provided to the participants, and alcohol-based hand sanitizers were made available to each of the focus groups to further reduce the risk of exposure. For the FGD, maximum of one participant was included from a house on a voluntary basis. For the in-depth interview (IDI), individuals who were at the forefront in the community such as the healthcare workers (doctors, nurses, laboratory workers) of the local hospital, security personnel (Nepal police, Nepal army, armed police force), media personnel, school teachers, local leaders, female activists, human right advocates, local public health experts, students, shopkeepers, drivers, daily wage laborers, and unemployed persons were selected for the participation. Data was collected in a community setting either at the household or at a place as preferred by the research participants.

Criteria for sample selection

The forefront community people who were willing to participate in the study and provided the written informed consent were included in the study. People who were less than 18 years or more than 60 years, pregnant, or those suffering from infectious disease or having underlying conditions were excluded from the study.

Data collection methods and technique

Focus Group Discussion (FGD) and in-depth interview (IDI) methods were applied using an interview schedule and topic guides.

Focus group discussions: The focus groups involved a moderator who was responsible for guiding the discussion and a note-taker who was responsible for taking notes, noting down non-verbal responses, and ensuring the tape-recording. A total of 8 FGDs were conducted, 2 in each district. Each group participated once in the FGD. Each member of the group was given the opportunity to make their contribution to any question posed before proceeding to another question. Each FGD lasted for 60-90 minutes on an average. The FGDs were conducted focusing on the objectives of

BMJ Open

the discussion. The participants were assessed on their knowledge and perception regarding the COVID-19 transmission, prevention and management, and the psychological impact the disease and the social distancing had created after national lockdown, using a semi-structured open-ended questionnaire. After the FGD, a health education session regarding COVID-19 was conducted among the participants as well as other people who were interested to join the session, complying with the social distancing guidelines as per the regulations by the Government of Nepal.

In-depth interviews: The In-depth interview was conducted by a single researcher. After obtaining informed consent, the interview was conducted at a location convenient for the respondent. Each IDI lasted for 30-45 minutes on average. A total of 40 IDIs were conducted with 10 IDIs in each district where challenges regarding preventive activities, community mobilization, and managing public expectations were assessed.

The discussions and interviews in Kanchanpur and Bajura districts were conducted in the local (Doteli/Pahadi) language although respondents tended to mix Doteli and Nepali languages during the interviews, whereas, in other study districts, the discussions and interviews were conducted in the Nepali language and were tape-recorded. The data was collected during a duration of 2-weeks. After completion of the data collection, the tape-recorded discussions and interviews were transcribed directly into the English language by an expert language translator.

The validation of the tool was ensured by the Item Objective Congruence (IOC) and consultation with the experts. A pre-testing, consisting of one FGD and four IDIs was conducted prior to the study, and the changes required were incorporated. The trustworthiness of the data was met through triangulation of different aspects of data collection: i) among different respondents, ii) using different methods of data collection such as IDIs and FGDs.

Ethical consideration

Ethical approval was obtained from the Ethical Review Board of the Nepal Health Research Council prior to the conduction of the study (Ref. No. 2124). For both FGD and IDI, informed consent was obtained from everyone, who signed a consent form, after elucidating them about the purpose of the study. The participants were also distributed with the information sheets which had details about the purpose of the study in the Nepali language. Those who could not read the

information sheet by themselves, the information sheet was read aloud by the researcher and proceeded further only after the participants agreed to have understood. The participants were assured of their privacy and confidentiality, and that the data collected would only be accessible to the research team. Participants were informed of their right to refuse to participate in the study or withdraw from the discussion at any time. To maintain the privacy of the participants and confidentiality of the information during discussion, it was ensured that no one other than the selected participants and the moderators attended the sessions. At the end of each FGD and IDI, participants as well as other interested people who were available at the data collection hubs were given pamphlets containing essential and evidence-based information on COVID-19 supplemented with ways of protecting their mental and psychological health.

Data management and analysis

The collected data from the focus groups and interviews were transcribed verbatim. An independent researcher conversant in Doteli, Nepali, and English language cross-checked the transcripts for accuracy and language translation consistency.

Colaizzi's phenomenological analysis method was used to analyze the transcript. The analysis included steps such as familiarization, identifying significant statements, formulating meanings, clustering themes, developing an exhaustive description, producing the fundamental structure, and seeking verification of the fundamental structure [12]. Two researchers were involved in independently reviewing the data and formulating the themes after summarizing and extracting the meaningful contents, bracketing the pre-suppositions of the researchers. In order to maintain the anonymity of the personal information, we coded the responses into three categories of responses when writing the final manuscript. The categories are community participant, health care worker, and security personnel.

Patient and public involvement

Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this study.

RESULTS

A total of 8 FGDs were conducted in 4 districts: Kathmandu Metropolitan City-7, Kathmandu; Bhimdatt Municipality-2, Kanchanpur; Budhiganga-5, Bajura; and Mechinagar-11, Jhapa, comprising of 24 males and 24 females above 18 years of age. Similarly, 40 IDIs were also conducted among people from these districts. The baseline characteristics of the participants are given in Table 2.

Variable		FGD Par	ticipants	IDI Participants	
		Number	(%)	Number	(%)
Age Group	18-30	12	25	12	30
	31-40	18	37.5	14	35
	41-50	10	20.83	8	20
	51-60	8	16.67	6	15
Sex	Female	24	50	18	45
	Male	24	50	22	55
Religion	Hindu	30	62.5	24	60
	Buddhist	8	16.67	8	20
	Muslim	4	8.33	4	10
	Others	6	12.5	4	10
Marital	Single	18	37.5	15	37.5
Status	Married	30	62.5	25	62.5
Ethnicity	Brahmin	14	29.17	12	30
	Chhetri	12	25	12	30
	Indigenous	12	25	9	22.5
	Others	10	20.83	7	17.5
Highest level	Illiterate	12	25	5	12.5
of Education Grade 10 or		9	18.75	8	20
	below				
	Grade 12	7	14.58	8	20
	Bachelor	12	25	14	35

	Masters and above	8	16.67	5	12.5
Occupation	Unemployed	5	10.41	4	10
	Health workers	7	14.58	8	20
	Teachers	3	6.25	4	10
	Leaders	6	12.5	8	20
	Security personnel	5	10.41	4	10
	Students	5	10.41	4	10
	Homemaker	7	14.58	2	5
	Others	10	20.83	6	15
Resource	Rural	24	50	20	50
Setting	Urban	24	50	20	50
Geographical location	Himalayan region	12	25	10	25
	Hilly region	12	25	10	25
	Terai region	24	50	20	50

The responses from the IDIs and FGDs were classified into five broad themes. Within each broad theme were several sub-themes. The themes and subthemes are summarized in the Table 3:

Table 3: Participants'	perceptions and	experiences	during the CO	OVID-1	9 pandemic

Theme	Subthemes
About COVID-19	Origin of the disease
	Cause of the disease
	Mode of transmission
	Threats and risk groups
Prevention of disease	Information regarding prevention
	Eating habits
	Sanitation

	Mask and its use		
	Personal Protective Equipment (PPE)		
	Lockdown		
	Awareness program		
Source of information	Role of media		
	Credibility of news		
	Rumors and misconceptions		
Expectation and Challenges	Inadequate PPE		
	Health system management		
	Violation of lockdown		
	Demand of people		
	Quarantine		
Effects of COVID-19, social distancing	Social discrimination and stigma		
and lockdown	Lack of social interaction		
	Economic loss		
	Change in lifestyle		
	Psychological impact		

Theme 1: About COVID-19

Participants mentioned China as the origin of COVID-19. A few expressed it being a bioweapon made by powerful countries.

"Well, though I don't know much about its origin, it is said that it originated from the Wuhan province of China." **Respondent ID 1, Community participant**

When asked about the cause of the disease, the participants believed that it is caused by a virus and is communicable through droplets during sneezing and coughing. Whereas a few expressed that it can be transferred from eating meat and eggs.

"...we have been listening about this for about 1 month, so I think it can be transmitted through droplets from mouth and nose during coughing and sneezing. Also touching infected area can transmit the disease" **Respondent ID 2, Community participant**

"...but this disease has spread due to eating raw and uncooked meat." **Respondent ID 3,** Community participant

Participants agreed that people with low immunity, children, old people, and the diseased (asthma, heart disease, liver disease, and kidney disease) are more at risk.

"[Sigh...]...the news I heard yesterday, which said people above 60 years are dying in such a great number and people with other diseases of lungs, hearts, liver, and kidneys are also dying in high number." **Respondent ID 4, Community participant**

Theme 2: Prevention of disease

Participants reported using masks, washing hands or using sanitizer, and maintaining social distance will prevent disease. Similarly, participants also reported maintaining at least one-meter distance during the conversation with people. Some said that bathing after returning from the market and changing clothes regularly can prevent transmission.

"One thing I am still not sure about the mask, some say surgical masks, some say N95, and some say a mask cannot stop the infection, it's worthless. [laughs...] But I am still using my old mask when I go out. I believe, a mask can prevent its (COVID--19) transmission to a significant level." **Respondent ID 5, Community participant**

Participants suggested that avoiding the consumption of raw meat and eggs is key in preventing the disease and proper cooking would kill the virus.

"All these types of diseases have originated from meat and eggs so we should stop eating meats and eggs..." **Respondent ID 6, Community participant**

BMJ Open

Participants thought that the government is trying its best to prevent transmission, but it is not adequate. They thought the lockdown and border closure were some of the praiseworthy steps of the government to prevent the spread of the disease.

It was suggested that enforcing strict lockdown, blocking of borders, and social distancing were the most appropriate measures to limit the transmission of this disease. Lockdown would restrict people from moving and carrying the disease to different areas.

"...it is very much helpful for a country like Nepal to prevent the spread of the disease, as compared to developed countries...the government should extend lockdown till transmission stops... we should also close our border until corona fear is out of the world..." **Respondent ID** 1, Community participant

However, the need for alternatives to lockdown was also suggested as it has created much havoc in the country and would heavily degrade the economy.

The participants thought that still many people especially in the village were not aware of the disease but were frightened. So, they suggested increasing the awareness program. They also requested media to play a positive role in providing informative programs rather than reporting only the rising cases and deaths of the people.

"... Media can share true news, condition around different parts of the world, and create awareness...it is not enough... Wrong information and negative news can make people more scared and fearful...they should provide the right information and conduct informative programs." **Respondent ID 7, Community participant**

Theme 3: Source of information

Participants had heard about the disease from Television, radio, newspapers, and social media. They were thankful to different media for reporting news from all around the world that helped them to get information about the COVID-19, its transmission, prevention, and day to day situation in and around the country.

"The worldwide information given by the media has helped us to know about the disease and to stay safe. It has awakened people." **Respondent ID 8, Community participant**

Moreover, they believed the news as it is from national newspapers and channels while some were reluctant to believe.

"No...it's not always true. Some of the negative news spread by media makes people anxious and terrified rather than awakening them. I am very much terrified by the scenes of dead bodies shown by the news." **Respondent ID 9, Community participant**

There were varied perceptions regarding COVID-19 about its origin and its survival. Participants blamed different non-vegetarian food items to be the source of infection. They thought that consuming meat and egg can cause this disease. Moreover, they agreed on the idea of low survival of the virus in hot temperature. It was also believed that Nepalese people are immune to the virus and would not be affected easily. In addition, they argued on the idea of turmeric, onion, tea, and alcohol in preventing the disease.

"I think this virus cannot survive in the hot temperature because this disease has affected more cold countries." **Respondent ID 10, Community participant**

"Yesterday I was told about alcohol being a preventive measure... [laughs]... I think it is false. Alcohol rather decreases the immunity of the body." **Respondent ID 7, Community participant**

People argued that all the information that came through media was not reliable; especially that of social media, it contained many rumors regarding the COVID-19 cases in Nepal and people also mentioned that they had cross-checked online news portals and listened to television for verification. The Facebook pages, unauthorized online news portals had more false information.

Theme 4: Expectations and challenges

Participants argued on the effectiveness of the government interventions, such as tracing and testing were not being adequately performed. Also the health workers were not provided with adequate personal protective equipment (PPE) which should be the first duty of the government. *"Oh my god, poor health workers, they are the real heroes of this time. We can't even imagine how much risky their job is...and also they are not provided with adequate PPE."* **Respondent ID 11, Community participant**

Health workers said that expectations had not been met; fear was palpable amidst them due to inadequate PPE that caused them to hesitate in readily providing treatment to the patients. They said that when there was a sudden shortage of masks, and other PPE, the challenges were added. Initially, health professionals with inadequate PPE felt extremely insecure to check patients. Also, people had lied about their travel history in the fear that doctors may not treat them. This might cause an increased risk of transmission.

"Well, we are always ready to serve patients. But, we have not been provided with adequate protective measures. It's like pushing us to the battleground without providing us any weapons. This would indeed be more dangerous as a single health worker can transmit the disease to hundreds of people at a time." **Respondent ID 12, Health care worker**

"The government should also focus on providing us with adequate PPE. No one wants to suffer individually; everyone has their family and equally love them as others do. We feel very much demotivated because of the government's inaction in providing security to us." **Respondent ID 13, Health care worker**

People suggested conducting the mass screening, contact tracing and testing, and managing sufficient ventilators to hospitals in different parts of Nepal. They also said to seal the borders very effectively. But, ineffective orientation to the staff at the hospitals aroused fear among them to treat the COVID-19 suspected patients.

"There is still the system of referring people to higher centers in most of the places (hospitals). This has generated some gaps between people and health workers. Also, the patients who are admitted have been expecting an isolated environment and constant care, which we have not been able to provide." **Respondent ID 14, Community participant**

However, people also questioned the government regarding its functioning, as they condemned the activity of some of the government officials and non-exposed non-front line staff on misusing the N95 masks and PPE.

"It's disastrous that the healthcare workers and other frontline personnel are not getting adequate PPE to wear. They have been using the same surgical mask for many days; haven't got any other protective equipment. But the government officials and the ministers have been using N95 mask even at home. I don't know how this system works. This is ridiculous." **Respondent ID 7, Community participant**

Demand of people:

Participants said that the people had kept many expectations from political parties, health workers and security forces; of them, some were genuine concerns, but the government had failed to address them. However, the political leaders argued that most of the demands had been fulfilled whereas some of the demands were ambitious and not an emergency at the moment.

Furthermore, participants lamented on problems they were facing and requested the government and the leaders to fulfill their demands to survive their daily livelihood.

"... We are facing different challenges due to lockdown. We have no work and markets are closed...there is a scarcity of food and they charge us more, we have no money to pay, so how can we continue our livelihood?" **Respondent ID 15, Community participant**

"....I am a patient of sugar (Diabetes Mellitus) and pressure (hypertension)...I want to go to hospital but I cannot go easily...the government cannot manage services for us. It is paradoxical to let people die from other diseases, to save people from coronavirus." **Respondent ID 16, Community participant**

More or less, people had understood about the COVID-19. So most of the people had been staying at their homes keeping in mind the severity of the disease. However some had been breaking the lockdown. People had kept great expectations from the police to help their community by taking strict actions against those who were violating lockdown and who were escaping the quarantine.

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

BMJ Open

"General population wants us to aware people not to violate lockdown and social distancing. Some have expected to provide security to their shops also. We are concerned for the people who are daily wage workers and want to go back to their villages. Most of them try to break the lockdown." **Respondent ID 17, Security personnel**

Participants have opined that people who try to break the rules of the lockdown must be punished since they could transfer disease to many more people. However, some participants thought that people trying to break lockdown was not completely their fault. As the government had not done enough homework to help the general public, community people were compelled to violate sometimes.

"...It's not our fault, the government should have applied the lockdown strictly. They have been allowing some people to go and some have been beaten harshly. Though many police personnel have been helping the people, there are a few who are very rude." **Respondent ID 1, Community participant**

".....The health workers, the media and the government have to inform those people well. Also, some people trying to break the rule have some obligations that should be solved by the government." **Respondent ID 18, Community participant**

"I have been working as a frontline health care worker in the nearby hospital. While going to the duty in my motorcycle, the authorities are not allowing me to go, even if I show my identity card. Instead, they beat us with sticks and scold with rough words for breaking the lockdown. This is the height of their brutality. We have been serving to cure people but, alas, we healthcare workers are the sufferer." **Respondent ID 19, Health care worker**

Moreover, participants were worried about the people who had started walking on foot for many days to return to their home and requested the government to take up some actions to let them reach home easily, despite the lockdown.

"We are worried about those people (people walking to reach their home)... (pause)...we can't imagine the journey they have started to walk from east to west. It would take months for them to reach their home. They are all daily wage workers and have no money to sustain. They should be supported." **Respondent ID 20, Community participant**

"Government should make proper arrangements and transport them to their respective homes." *Respondent ID 21, Community participant*

Participants shared that the government had been trying but the designated quarantine facilities were not sufficient and effective. They suggested to increase the quarantine homes and convince people to stay at quarantine. They kept the view that the health facilities were not adequate in quarantine and isolation.

"...government is developing quarantine homes but are not appropriate. The protective measures have not been applied sufficiently." **Respondent ID 18, Community participant**

"...not sufficiently performed, health facilities are for treatment not for the quarantine and isolation." Respondent ID 12, Health care worker

However, participants were worried about the people who were stuck in lockdown and quarantined at the border areas.

"It is troublesome for people who are stuck at the borders. What would happen to them if they remain in tents at the border? They are thousands in number. There is a high chance of transmission of the disease in the crowded quarantine facilities... (Pausing and thinking)... The government should make arrangements for them." **Respondent ID 21, Community participant**

"It's a matter of worry.....a person staying across the border quarantine...his mother died here. He is not allowed to come to pay a last tribute to his mother. We should think about them." **Respondent ID 22, Community participant**

Moreover, the security personnel were worried about their health and requested the government to provide adequate PPE and let them be tested for the disease.

"Yesterday, a few people came hiding by and crossed the border by swimming in the river. ...(pause)... around thousands who came from the neighboring country, where the number of cases

of COVID-19 is increasing day by day. We had to perform our duty with great fear as we didn't want to get the disease. We have not been provided with adequate PPE and other protective measures. We would be grateful if we are also tested with our swab for Coronavirus." **Respondent ID 23, Security personnel**

Theme 5: Impact of COVID-19, social distancing and social isolation

Social discrimination and stigma:

Participants reported about the stigma cases in the community as well as reflected their views on social discrimination and stigma. The healthcare workers were expelled from their rent houses; moreover, they were denied proper fooding and lodging in the hotels. The COVID-19 positive cases were disrespected in the community. The persons who returned from abroad were shunned by the community people. The people who were sent home from quarantine centers after they tested negative for PCR tests, were not permitted to enter their homes. The community people strongly opposed the local government's decision to make a quarantine center in their village. Similarly, the people avoided going to the funeral of the people who died from COVID-19. The people who marched to walk a long way to their home by foot were prohibited to walk near the streets and highways. In addition, participants reported that after a significant number of positive cases increased in the mosque, people started blaming Muslims for spreading the COVID-19.

The stigma was prevalent even among the local government bodies and police personnel. Trucks of vegetables and fruits were destroyed by the local administration after they came to know that those agricultural products belonged to the COVID-19 affected areas. Similarly, the police personnel manhandled the persons who came from abroad and stayed at home even if they tested negative for PCR for COVID-19.

"The house owner has told me to leave the rented room as soon as possible, blaming me to be a major source of COVID-19 spread. Where should I go all of a sudden? I feel regretful; I made a wrong decision by choosing this profession." **Respondent ID 24, Health care worker**

"Sometimes people make us gods and sometimes they disparage us. Now the hotels are also being reluctant to provide us fooding and lodging. Even the hotel organization has rejected making it a quarantine center for the health workers." **Respondent ID 19, Health care worker**

"As all the transport means were shut down, we were impelled to walk on our feet to our homes. The locals prohibited us to walk even in the highways and streets. They told us not to use this path, as they felt risky to be in contact with us." **Respondent ID 9, Community participant**

"I had stayed in the quarantine for 2 weeks and was sent home after my reports came negative. But then also, nobody in my neighbor even bothered to talk with me. They (neighbors) have told their children not to visit my home or play with my children." **Respondent ID 7, Community** *participant*

"How can we allow the government to make a quarantine center in our village school? The houses are denser here. Further, there are many other places which are far away from the residential area. Better to make them (quarantine) there. It (government) cannot keep our life at risk." **Respondent ID 4, Community participant**

"I returned from abroad few days back. I was all healthy, without any symptoms, but also, I was staying in home-quarantine. But, our neighbors came and scolded me to leave the room saying that I could be a contagion for this (COVID-19). Later they informed the local authorities. The authorities also shouted at me and took me to the police station. Then I was kept there until my PCR report came negative. I thought of coming to my own country in this stage of the crisis. But I had to bear this humiliation in my own place, by our own people." **Respondent ID 25, Community participant**

"The media have been repeatedly reporting about how deadly this disease is. The mortality is increasing day to day. How can we go to the funeral of positive cases? The dead person has already gone, why should we risk our life? We fear even to touch the dead body." **Respondent ID** 21, Community participant

"We have seen the administration personnel detaining the transport trucks coming to our place and destroying the fruits and vegetables thinking that they may spread Corona." **Respondent ID 18, Community participant**

Lack of Social interaction:

Participants stayed at home due to social distancing and social isolation policy, except a few directly involved frontline workers such as healthcare workers and security personnel. They agreed that social interaction had decreased significantly and were feeling socially isolated from each other.

"It's been so long that we have been staying at home. There's the same daily routine. We used to play carom and cards at the Chowk (junction)." **Respondent ID 26, Community participant**

However, a variation was found between the participants in rural and urban areas in terms of social interaction. The participants in urban areas said that they were strictly prohibiting any interaction with other people. But people in villages or rural areas had different views regarding social interaction. They said that they were meeting people in the neighboring houses, though the interaction had decreased in comparison to the pre-lockdown period; and also, they would maintain a distance of at least one meter between people.

"There are only houses and buildings with a high density of people living in this area. So we are prohibiting us from going anywhere." **Respondent ID 11, Community participant**

"Hmm....The houses are less dense, there are less number of people. We can say hello and hi from our courtyard to them (neighbors). Though we less often leave our house, we sometimes go to our neighbor's house. We gossip... (laughs)...but we maintain a one-meter distance between us. Sometimes, we also use the mask, if going a bit far from home. But, our movement has not stopped." **Respondent ID 27, Community participant**

Economic Loss:

Participants had varied views on the economic loss due to lockdown and social isolation policy. The daily wage workers were suffering the most who lamented that they did not have enough money to sustain their livelihood. They were worried about their family members as they were the only bread earners in the family.

"...what should I say sir (to the interviewer)...this lockdown has been a catastrophe for us. I used to earn money after working daily. I worked at the people's house. I did everything...from cleaning pots and pans to performing daily chores, and earned some money... (tears in eyes seen)...Now nobody is allowing even to walk anywhere." **Respondent ID 28, Community participant**

"I have planned to go home tomorrow on foot. I came here a few months back to work in a factory. But due to lockdown, the factory is closed. All work has been halted. We are not paid money now... (pause)...we have been waiting so long for the lockdown to resume. I am bankrupt now. I don't have money even for food." **Respondent ID 29, Community participant**

Besides, people brought into concern that there was a significant loss in their business due to the closure of the market.

"I have a fancy shop in the market...It's been more than 2-3 months since it has been closed. We did not have earning for these months. Now, slowly, we are feeling difficulty to manage the expenditure." **Respondent ID 2, Community participant**

There were a few government officials who were not affected economically by the lockdown and social distancing, as the government had been paying them the monthly salary as usual. *"Though it's difficult for us in terms of buying things from the market and few things have been expensive due to a shortage in the market. But since we are paid by the government (salary), we haven't faced difficulty to run the livelihood." Respondent ID 30, Community participant*

Changes in lifestyle:

A significant variation in the lifestyle was found among people from the urban and rural area, affected by lockdown and social distancing. The people from the urban area were worried about their sluggish lifestyle since the start of lockdown.

"We have become claustrophobic seeing the four walls of this home, daily. There is no place to go. No parks and open spaces nearby...people and media say that we should not leave our home...we have been doing even morning walk in a single room, going from one corner to another." **Respondent ID 18, Community participant**

BMJ Open

"There is no work for me to do. My office is shut down. I have no place to go. I have watched almost every movie I have on my list twice. Now I have started feeling bored and lonely. I fear to go outside." **Respondent ID 31, Community participant**

However, people in villages and rural areas had different experiences. They said that though they were not going anywhere they had plenty of work to do in their field and made themselves busy there.

"This is the time for harvesting the wheat and prepare for planting the paddy. So, we are busy with it. Though we have been maintaining some distance among us, we haven't stopped our work." **Respondent ID 32, Community participant**

"I can go anywhere I want. There are many open spaces and fields. Its all-natural here. I have been going for the walk in the morning. Nothing has changed in my lifestyle, except going for a social gathering." **Respondent ID 33, Community participant**

On one hand, a few participants said that lockdown had created a good environment to be with family members together, and had utilized their time productively; whereas, a few were fed up with prolonged and extended lockdown and were worried about the change in their lifestyle. *"It has been a long vacation for us. We have been enjoying home, and family time. We have been playing badminton in the morning, and learning household chores. Watching television is a daily schedule for me. I am also reading new books."* **Respondent ID 34, Community participant**

"I had exams hot at hand. I hadn't prepared well for the exams. It's better that I got plenty of time to prepare for the exams. Good for me...hehehe (laughs)" **Respondent ID 35, Community** *participant*

"The long vacation is crazy. I now learned it's very difficult to sit doing nothing. I used to go to gym, but it's closed now. It has made me lazy and sluggish. I have increased my weight too. I have started feeling bored." **Respondent ID 26, Community participant**

Psychological Impact:

People agreed to have some of the psychological impacts due to this disease. Some felt anxiety and fear of being infected and some were stressed due to being isolated in this lockdown. They had a fear that if the disease spreads in the village areas of Nepal, many people would die as there are no adequate health care facilities. One of the participants expressed that her children were fearful when they constantly listen to their parents talking about COVID -19 disease and its threat. "Yes, I am very anxious and fearful to meet with my neighbors and go to a nearby shop. If I even have a conversation with anyone, I feel anxious." **Respondent ID 31, Community participant**

"I feel demotivated and depressed each day. Though I have been preparing for my exams, I am unable to concentrate on myself. I spend my whole day listening to the news and worldwide updates on Coronavirus infection and deaths." **Respondent ID 36, Community participant**

"My son is a doctor. He is working in the COVID-19 hub hospital in the main city, where so many positive cases have been found. I fear that my son would be infected with it (COVID-19). I don't like speaking with anyone these days. Boredom and loneliness have been my friends." **Respondent ID 6, Community participant**

Besides, the healthcare workers said that they were fearful to work in the frontline in the treatment of COVID-19 positive and suspected cases.

"Each day, I start my day praying the god to protect us from the disease. We have not been supplied with adequate PPE. Sometimes, it's not even possible to take every precaution. It has been a month that I have not gone home. I fear that I could transmit the disease to my family members... (Pause)...I had been preparing for the MD exams in my leisure time...but now I have completely stopped preparing. I cannot concentrate on myself." **Respondent ID 13, Health care worker**

Similar was the response from the security personnel who was fearful to work in the field away from home.

"After a long time, I planned to go home this time but my leaves were canceled. All my happiness of meeting my family after so long gone in vain. We are at risk of exposure to people at the

BMJ Open

quarantine. I fear that I would die before I could meet my family members and my 5 years old daughter. It has been weeks that I haven't eaten and slept properly." **Respondent ID 17, Security** *personnel*

Alike, people whose family members were in foreign countries seemed to be more terrified and anxious.

"My only son...(tearful eyes) ...(pause) ...just one week before the lockdown began, he went abroad to give his exams for his further studies...the exams got canceled now...he could not return as lockdown had already started here (in Nepal) ...He has no place to stay there and money to survive on his own...some of the kind Nepali people have given him shelter till now...there's not a single day that I have slept well and not cried." **Respondent ID 37, Community participant**

Moreover, people also claimed that the media played a negative role and the continuous information provided by it increased fear and anxiety among people.

"From a long time we are staying at home... and the media have been constantly giving news on the rampantly increasing number of new deaths day by day....The news of people dying, developed countries not being able to control it, etc. are terrifying for us. It has increased my blood pressure. I and my family are not able to sleep properly for a week." **Respondent ID 7, Community** *participant*

DISCUSSION

This study explored the perceptions of the public towards COVID-19, and their experiences during the COVID19 lockdown on lifestyle, mental health, and social life public. The study showed that participants possessed good knowledge about the origin, transmission, cause, and prevention of COVID-19. They were aware that using masks and sanitizers, washing hands, and maintaining social distance could help them prevent the disease, and they believed that awareness campaigns in rural areas are necessary. Mass media played a vital role in raising awareness among people; however, the need of checking the credibility of all information spread by social media before believing it was also stressed by some participants. The finding of this research is supported by

the study conducted in Bangladesh [10] where most of the participants were aware of the COVID-19 pandemic, and their source of information was mass media. In the United States [9], most people exhibited good knowledge about the mode of transmission, causes, and symptoms of the COVID-19. In this study, participants mentioned the potential risk factors of the disease, such as age, and comorbidities, which were similar to the report published by the Center for Disease Control and Prevention (CDC) [13]. Similarly, the study conducted in Uganda [14] reported that awareness and attitude played an important role in preventing the spread of COVID-19. Safe water, sanitation and hygiene is a must for defending against the COVID-19 [15]. However, debates are still ongoing on the evidence of the face mask's use in prevention. The use of surgical masks in high risk and crowded areas can provide effective protection [16].

Participants also believed: survival of the virus on hot temperatures, Chinese food being the source of the infection, meat and egg consumption causing the disease, potential role of turmeric, onion, tea, and alcohol in preventing disease. Some people also believed that the Nepalese people are born immune to the virus. A similar study conducted in India showed that social media played a major role in spreading awareness among the public, however, the spread of fake news was also reported, highlighted racism issues during the epidemic which created panic and negative influence on people's mental health and psychological wellbeing [17, 18]. Similarly, one study revealed that exposure to the sun or temperature more than 25 degrees Celsius prevents the disease and cannot spread further in hot and humid climates. Other studies also reported misconceptions around the disease, such as people cannot completely recover from the COVID-19 once they suffer, drinking alcohol prevents the disease, coronavirus is transmitted through mosquito bites, hand dryers are enough for killing SARS-CoV-2, antibiotics are effective for the treatment of COVID-19, garlic and honey help in curing the disease, acid in our stomach kills the virus if we drink enough water, clapping hands create vibrations that destroy the virus, religious chants can kill the virus [19, 20], and low-income countries are more immune to COVID-19 [21].

This research has also highlighted the expectations of the people and challenges of the government to control the COVID-19 pandemic in Nepal. Inadequate PPE for health workforces, health system mismanagement, lack of sufficient and effective quarantine centers, and the violation of lockdown were some of the challenges during this pandemic situation that were put forward by the participants. Similar to this study, lack of protective equipment and lack of transportation were the

difficulties experienced by rural residents in China during the epidemic [22]. A study conducted in Nepal showed that a shortage of test kit and medical supplies, personal protective equipment, poor coordination among different tiers of government, and poor reporting were the major challenges in containing COVID-19. The high population density in the urban areas of South Asia makes it difficult for people to maintain social distancing and proper personal hygiene [23]. Personal protective equipment is essential to reduce viral transmission and prevent the spread of the disease among the health care workers and patients [24, 25], but shortage, inappropriate use and misuse are the major problems in the UK [24], and shortage of PPE in high-demand areas like triage and isolation wards of India has resulted in severe problems [25]. In Thailand, contact tracing is most effective but mass screening cannot be afforded by the government [26]. Similarly, a study conducted in Taiwan revealed that testing only symptomatic cases can miss many asymptomatic infections and render contact tracing less effective [27].

Violation of lockdown is one of the big challenges for the government. Social distancing is regarded as the most effective measure for mitigation of the disease [28]; additionally, early lockdown reduces the effects of the disease [29]. The experience of China suggested that social distancing is a deliberate effort to slow down the spread of infectious or contagious diseases. Keeping that in mind, most of the countries focused on social distancing and lockdown systems to prevent the spread of the disease [30]. Similarly, participants from a study believed that quarantine, social distancing, and use of face mask can actually break the chain of COVID-19 spread [31]. In Pakistan, forced lockdown was not feasible, so it changed into a partial lockdown first and then into a smart lockdown [32]. Therefore, lockdown is a hard choice and challenging in order to maintain essential services [33]. Quarantine is effective to control the COVID-19[34] (34), but its effective management is a challenge for the government.

The impact of the pandemic and lockdown on people is huge. People believed that the disease is reducing social interaction, exacerbating the economic crisis, increasing psychological effects (fear, anxiety, and depression), and also changing the lifestyle of the people in many ways. In rural areas, however, people believed that COVID-19 has not brought much changes in their lifestyle. Interestingly, for some participants, lockdown had some positive impacts as well as it has helped them to have a quality time with their family members and helped them feel refreshed.

This study showed that COVID-19 has aroused SO much of social stigma and discrimination especially towards health workers, their family members, people coming from abroad, and people living in quarantine. According to UNICEF, COVID-19 is a new disease and there are still many unknowns that cause the stigma in public [35] and anxiety caused by the COVID-19 leads the stigma [36]. The studies showed health care workers, people released from quarantine, returning from travel, and people with the disease and their families faced social stigma [37]. A study revealed that health care providers working in hospitals and laboratories are discriminated against and are facing difficulties for food and shelters. Neighbors and community people refuse to talk and show displeasure to the health care providers [38]. Similar to this study in Nepal, health workers were expelled from their rooms and faced difficulty in getting food in the hotel [39]. It makes people socially isolated, and people may feel angry and depressed [37].

Social distancing and social isolation during COVID-19 have affected most people in a negative way. It has reduced social interactions, changed lifestyle, led to economic loss, and resulted in psychological crises. Social isolation increases loneliness which is a risk factor for various psychological conditions [40]. This study conducted in the UK also showed that social distancing and isolation had negative impacts on the mental health and wellbeing of people. It also affects employment, economy, individual's worthiness, and daily routines of people leading to psychological and emotional loss [41].

Strengths and limitations

The major strength of this study is that there is representation of participants from diverse backgrounds in terms of gender, profession, education, geography, and social status. A large number of participants were interviewed in a short period of time abiding preventive measures and safety guidelines. Furthermore, this is a pioneer qualitative study exploring the perceptions of general public on COVID-19 in Nepal.

This study used qualitative research methods; per se these findings are only indicative and may not be generalizable. However, to overcome this limitation, participants from different districts of different provinces that represented diverse backgrounds were selected. Due to different stages of lockdown and disease outbreak in different parts of the country, people were hesitant to participate in focus group discussions and somewhere they were discouraged by the authorities. To address

BMJ Open

this issue, government-set rules and regulations for the public gathering were followed, i.e. maintenance of one-meter distance, use of masks and sanitizers; and they were ensured of safety and free will to withdraw any time. Similarly, since the children and elderly population were excluded from the study due to the possibility of an increased risk of COVID-19, their views and experiences could not be understood. Moreover, this was a short-term study conducted over a period of two weeks. The long-term experience of the participants may provide a better understanding of people's experiences during the pandemic.

CONCLUSIONS

People believed that the use of masks and sanitizers, frequent handwashing, maintaining social distance, and manageable lockdown helps in preventing the disease. Similarly, social distancing, isolation and economic loss during lockdown increase the risk of psychological problems showing the need for professional counseling. High expectations from people, inadequate supply of PPE, violation of the lockdown, unprepared health system, poor quarantines, and the rumors created by social media are challenges faced by the government during this pandemic.

ACKNOWLEDGEMENTS

We acknowledge the support received from Mr. Tribhuwan Bhatta, Ms. Pooja Uprety and Ms. Kabita Bhatt during data collection. The authors thank the participants for their participation in the study.

AUTHOR CONTRIBUTIONS:

NB, BB, SG and SSB conceptualized and designed the study. NB, BB, SG, SD, ARJ contributed to the literature review. NB, SD and ARJ contributed to data collection. NB, BB, SG and SSB contributed to data analysis. NB, BB, SG, BN and SSB contributed to data interpretation. NB, BB and SG wrote the first draft and received input from SD, ARJ, BN and SBB during revision. All authors performed draft editing and final draft preparation. All authors read and approved the final manuscript.

COMPETING INTERESTS

None declared

FUNDING

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

PATIENT CONSENT FOR PUBLICATION

Not required.

DATA AVAILABILITY STATEMENT

All data relevant to the study are included in the article or uploaded as supplementary information.

REFERENCES

- 1. World Health Organization. Coronavirus. 2020. Available: https://www.who.int/health-topics/coronavirus#tab=tab 1 [Accessed July 23 2020].
- 2. Yuen KS, Ye ZW, Fung SY, *et al.* SARS-CoV-2 and COVID-19: The most important research questions. *Cell Biosci.* 2020;10(1):1-5. doi:10.1186/s13578-020-00404-4
- 3. Cucinotta D, Vanelli M. WHO declares COVID-19 a pandemic. *Acta Biomed*. 2020;91(1):157-60.
- Ministry of Health and Population. Latest update of Nepal: COVID-19. 2020. Available: https://covid19.mohp.gov.np/#/ [Accessed July 31 2020].
- Kaplan J, Frias L, McFall-Johnsen M. Our ongoing list of how countries are reopening, and which ones remain under lockdown. *Business Insider*. 2020. Available: https://www.businessinsider.com/countries-on-lockdown-coronavirus-italy-2020-3 [Accessed July 20 2020].

1 2	
3	6. Nepal Government. Ad
4 5	-
6	
7	https://mofa.gov.np/add
8 9	oli-on-control-and-prev
10	7. Wang C, Pan R, Wan Z
11 12	during the initial stage
13 14	general population in C
15	8. Mahato P, Tamang P, S
16 17	<i>Eur J Med Sci.</i> 2020;2(
18	
19 20	9. Geldsetzer P. Knowled
21	United States and the U
22 23	2020;173(2):157-160. c
24	10. Farhana KM, Mannan
25 26	(COVID-19) in Bangla
27	11. Ives J, Greenfield S, F
28 29	pandemic influenza: A
30	-
31 32	12. Morrow R, Rodriguez
33	Psychologist. 2015;28(
34 35	13. Center for Disease Con
36	Illness. 2020.
37 38	data/investigations-disc
39	14. Ssebuufu R, Sikakulya
40 41	· · ·
41	towards measures for
43	nationwide online
44 45	http://medrxiv.org/cgi/d
46	
47	15. World Health Organiza
48 49	COVID-19 virus. 2020
50	https://apps.who.int/iris
51 52	2020.3-eng.pdf [Access
53	16. Feng S, Shen C, Xia N
54	
55 56	Lancet Respir Med. 202
57	
58	
59 60	For peer review o
	-

•	Nepal	l Gove	rnment. Ad	dress to	the Nation by	Right	Honorable Prime	e Minister	KP Sharma
	Oli	on	Control	and	Prevention	of	Coronavirus.	2020.	Available:
	https://mofa.gov.np/address-to-the-nation-by-right-honorable-prime-minister-kp-sharma-								
	oli-on-control-and-prevention-of-coronavirus/ [Accessed July 20 2020].								

- Wang C, Pan R, Wan X, *et al.* Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *Int J Environ Res Public Health.* 2020;17(5):1729.
- Mahato P, Tamang P, Simkhada P, *et al.* Effects of COVID-19 during lockdown in Nepal. *Eur J Med Sci.* 2020;2(2):1-5.
- Geldsetzer P. Knowledge and perceptions of covid-19 among the general public in the United States and the United Kingdom: a cross-sectional online survey. *Ann Intern Med.* 2020;173(2):157-160. doi:10.7326/M20-0912
- 10. Farhana KM, Mannan KA. Knowledge and Perception Towards Novel Coronavirus (COVID-19) in Bangladesh. *Int Res J Bus Soc Sci.* 2020;6(2):76-79.
- 11. Ives J, Greenfield S, Parry JM, *et al.* Healthcare workers' attitudes to working during pandemic influenza: A qualitative study. *BMC Public Health.* 2009;9:1-13.
- 12. Morrow R, Rodriguez A, King N. Colaizzi's descriptive phenomenological method. *Psychologist.* 2015;28(8):643-4.
- Center for Disease Control and Prevention. Assessing Risk Factors for Severe COVID-19 Illness. 2020. Available: https://www.cdc.gov/coronavirus/2019-ncov/coviddata/investigations-discovery/assessing-risk-factors.html [Accessed 20 March 2020].
- 14. Ssebuufu R, Sikakulya FK, Binezero SM, et al. Awareness knowledge attitude and practice towards measures for prevention of the spread of COVID-19 in the Ugandans: A nationwide online cross-sectional Survey. *Medrxiv*. 2020;1-28. Available: http://medrxiv.org/cgi/content/short/2020.05.05.20092247
- World Health Organization. Water, sanitation, hygiene and waste management for the COVID-19 virus. 2020:1-9. Available: https://apps.who.int/iris/bitstream/handle/10665/331846/WHO-2019-nCoV-IPC_WASH-2020.3-eng.pdf [Accessed 20 July 2020].
- 16. Feng S, Shen C, Xia N, *et al.* Rational use of face masks in the COVID-19 pandemic. *Lancet Respir Med.* 2020;8(5):434-6.

- 17. Kadam AB, Atre SR. Social media panic and COVID-19 in India. *J Travel Med.* 2020;27(3):1-5.
- Ahmad AR, Murad HR. The Impact of social media on panic during the COVID-19 pandemic in Iraqi Kurdistan: Online questionnaire study. J Med Internet Res. 2020;22(5):e19556. doi:10.2196/19556
- Menon GI. COVID-19: Busting some Myths. Health and Medicine. 2020. Available from: https://indiabioscience.org/columns/indian-scenario/covid-19-busting-some-myths [Accessed 20 March 2020].
- 20. Dutta S, Acharya S, Shukla S, *et al.* COVID-19 Pandemic- Revisiting the Myths. *SSRG Int J Med Sci.* 2020;7(5):7-10.
- 21. Roy S. Low-income countries are more immune to COVID-19: A misconception. *Indian J Med Sci.* 2020;72(1):5-7.
- 22. Lihua M, Ma L, Liu H, *et al.* Knowledge, beliefs/attitudes and practices of rural residents in the prevention and control of COVID-19 : An online questionnaire survey. *BMC Infect Dis.* 2020;1-24. doi: 10.21203/rs.3.rs-22257/v1
- 23. Asim M, Sathian B, Van Teijlingen E, *et al.* COVID-19 Pandemic: Public Health Implications in Nepal. *Nepal J Epidemiol.* 2020;10(1):817-20.
- 24. Cook TM. Personal protective equipment during the coronavirus disease (COVID) 2019 pandemic a narrative review. *Anaesthesia*. 2020;75(7):920-927. doi: 10.1111/anae.15071
- 25. Bhattacharya S, Mahbub Hossain M, Singh A. Addressing the shortage of personal protective equipment during the COVID-19 pandemic in India-A public health perspective. *AIMS Public Heal.* 2020;7(2):223-7.
- Chaitrong W. Mass-testing not that effective in battle against contagion. The Nation Thailand. 2020. Available: https://www.nationthailand.com/news/30385921 [Accessed 20 March 2020].
- 27. Steinbrook R. Contact Tracing, Testing, and Control of COVID-19—Learning From Taiwan. *JAMA Intern Med.* 2020. doi:10.1001/jamainternmed.2020.2072.
- Singh R, Adhikari R. Age-structured impact of social distancing on the COVID-19 epidemic in India. *Quant Biol.* 2020;1–9. Available: http://arxiv.org/abs/2003.12055 [Accessed 20 March 2020].

2	
3	29. Zhang Y, Jiang B, Yuan J, et al. The impact of social distancing and epicenter lockdown
4	29. Zhang 1, Jiang B, 1 uan J, et al. The impact of social distancing and epicenter lockdown
5	on the COVID-19 epidemic in mainland China: A data-driven SEIQR model study.
6 7	medRxiv. 2020: 1-14. doi: 10.1101/2020.03.04.20031187.
8	30. Musinguzi G, Asamoah BO. The Science of Social Distancing and Total Lock Down: Does
9 10	it Work? Whom does it Benefit? <i>Electron J Gen Med</i> . 2020;17(6):17-9.
11 12	31. Vadivu TS, Annamuthu P. An Awareness and Perception of COVID -19 among General
13	
14 15	Public – A Cross Sectional Analysis. Int J Mod Trends Sci Technol. 2020;6(04):49-53.
16	32. Rukh L, Nafees M, Khan F. Evaluation of Forced-Lockdown, Partial Lockdown and
17 18	Smart-Lockdown against COVID- 19 Hazard and Related Problems: An Example from
19	Pakistan. <i>Res gate</i> . 2020. Available:
20 21	https://www.researchgate.net/publication/340940868_Evaluation_of_Forced-
22 23	Lockdown_Partial_Lockdown_and_Smart-Lockdown_against_COVID-
23	_19_Hazard_and_Related_Problems_An_Example_from_Pakistan [Accessed 12 June
25 26	2020].
20	
28	33. Sarwal R, Sarwal T. Mitigating COVID-19 With Lockdowns : A Possible Exit Strategy.
29	2020;1-4. Available: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3563538
30 31	[Accessed 12 June 2020].
32	
33 34	34. Nussbaumer-Streit B, Mayr V, Dobrescu AL, et al. Quarantine alone or in combination
35	with other public health measures to control COVID-19: a rapid review. Cochrane
36 37	Database of Systematic Reviews. 2020;4(2):013574. doi: 10.1002/14651858.CD013574.
38	35. The United Nations Children's Fund. Social stigma associated with the coronavirus disease
39 40	(COVID-19). 2020. Available: https://www.unicef.org/documents/social-stigma-
41	associated-coronavirus-disease-covid-19 [Accessed 12 June 2020].
42	
43 44	36. Gupta TK. Social stigma during COVID-19 pandemic. The Himalayan Times. 2020.
45	Available: https://thehimalayantimes.com/opinion/social-stigma-during-covid-19-
46 47	pandemic/ [Accessed 12 June 2020].
48	37. MAYO CLINIC. COVID-19 (coronavirus) stigma: What it is and how to reduce it. MAYO
49 50	CLINIC. 2020. Available: https://www.mayoclinic.org/diseases-
51	conditions/coronavirus/in-depth/coronavirus-stigma/art-20484278 [Accessed 12 June
52 53	2020].
54	2020].
55 56	
57	
58	
59 60	For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml
00	

- Rakesh Singh, Subedi M. COVID-19 and stigma: Social discrimination towards frontline healthcare providers and COVID-19 recovered patients in Nepal. *Asian J Psychiatr*. 2020;53(102222):1-2.
- 39. Poudel A. Stigma against health workers, patients and area locals continues in Covid-19 hotspots. The Kathmandu Post. 2020. Available: https://kathmandupost.com/national/2020/05/01/stigma-against-health-workers-patients-and-area-locals-continues-in-covid-19-hotspots [Accessed 5 July 2020].
- 40. Douglas M, Katikireddi SV, Taulbut M, *et al.* Mitigating the wider health effects of covid-19 pandemic response. *BMJ*. 2020;369:1-6. doi:10.1136/bmj.m1557
- 41. Williams SN, Armitage CJ, Tampe T, *et al.* Public perceptions and experiences of social distancing and social isolation during the COVID-19 pandemic: A UK-based focus group study. *medRxiv*. 2020. doi:10.1101/2020.04.10.20061267.

1 2 3 4	Reporting of	checkli	ist for qualitative study.				
5 6 7	Based on the SRQR guidelines.						
8 9	Instructions to authors						
10 11 12 13	Complete this checklis items listed below.	st by entering	g the page numbers from your manuscript where readers will find ea	ich of the			
14 15 16 17 18 19	missing information. I explanation.	Your article may not currently address all the items on the checklist. Please modify your text to include the missing information. If you are certain that an item does not apply, please write "n/a" and provide a short explanation.					
20 21			s an extra file when you submit to a journal.				
22 23	In your methods section	on, say that y	ou used the SRQRreporting guidelines, and cite them as:				
24 25 26 27	,	-	J, Reed DA, Cook DA. Standards for reporting qualitative research ad Med. 2014;89(9):1245-1251.	: a			
28 29 30 31			Reporting Item	Page Number			
32 33	Title						
34 35 36 37 38 39 40		<u>#1</u>	Concise description of the nature and topic of the study identifying the study as qualitative or indicating the approach (e.g. ethnography, grounded theory) or data collection methods (e.g. interview, focus group) is recommended	1			
41 42	Abstract						
43 44 45 46 47		<u>#2</u>	Summary of the key elements of the study using the abstract format of the intended publication; typically includes background, purpose, methods, results and conclusions	2			
48 49	Introduction						
50 51 52 53 54 55	Problem formulation	<u>#3</u>	Description and signifcance of the problem / phenomenon studied: review of relevant theory and empirical work; problem statement	3			
56 57 58 59	Purpose or research question	<u>#4</u>	Purpose of the study and specific objectives or questions	4			
60		For peer revie	ew only - http://bmjopen.bmj.com/site/about/guidelines.xhtml				

Methods

2				
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Qualitative approach and research paradigm Researcher characteristics and reflexivity	<u>#5</u> <u>#6</u>	Qualitative approach (e.g. ethnography, grounded theory, case study, phenomenolgy, narrative research) and guiding theory if appropriate; identifying the research paradigm (e.g. postpositivist, constructivist / interpretivist) is also recommended; rationale. The rationale should briefly discuss the justification for choosing that theory, approach, method or technique rather than other options available; the assumptions and limitations implicit in those choices and how those choices influence study conclusions and transferability. As appropriate the rationale for several items might be discussed together. Researchers' characteristics that may influence the research, including personal attributes, qualifications / experience, relationship with participants, assumptions and / or presuppositions; potential or actual interaction between	5
25 26 27 28			researchers' characteristics and the research questions, approach, methods, results and / or transferability	
29 30	Context	<u>#7</u>	Setting / site and salient contextual factors; rationale	4
31 32 33 34 35	Sampling strategy	<u>#8</u>	How and why research participants, documents, or events were selected; criteria for deciding when no further sampling was necessary (e.g. sampling saturation); rationale	5
36 37 38 39 40	Ethical issues pertaining to human subjects	<u>#9</u>	Documentation of approval by an appropriate ethics review board and participant consent, or explanation for lack thereof; other confidentiality and data security issues	6
41 42 43 44 45 46 47 48 49	Data collection methods	<u>#10</u>	Types of data collected; details of data collection procedures including (as appropriate) start and stop dates of data collection and analysis, iterative process, triangulation of sources / methods, and modification of procedures in response to evolving study findings; rationale	5
50 51 52 53 54 55	Data collection instruments and technologies	<u>#11</u>	Description of instruments (e.g. interview guides, questionnaires) and devices (e.g. audio recorders) used for data collection; if / how the instruments(s) changed over the course of the study	6
56 57 58 59 60	Units of study For pe	<u>#12</u> er revie	Number and relevant characteristics of participants, documents, or events included in the study; level of participation (could be w only - http://bmjopen.bmj.com/site/about/guidelines.xhtml	6

BMJ Open

1			reported in results)	
2 3 4 5 6 7 8	Data processing	<u>#13</u>	Methods for processing data prior to and during analysis, including transcription, data entry, data management and security, verification of data integrity, data coding, and anonymisation / deidentification of excerpts	7
9 10 11 12 13	Data analysis	<u>#14</u>	Process by which inferences, themes, etc. were identified and developed, including the researchers involved in data analysis; usually references a specific paradigm or approach; rationale	7
14 15	Techniques to enhance	#15	Techniques to enhance trustworthiness and credibility of data	6
16 17 18 19	trustworthiness	R C	analysis (e.g. member checking, audit trail, triangulation); rationale	
20 21	Results/findings			
22	Syntheses and	#16	Main findings (e.g. interpretations, inferences, and themes);	7-10
23 24 25 26	interpretation		might include development of a theory or model, or integration with prior research or theory	
27 28 29 30	Links to empirical data	<u>#17</u>	Evidence (e.g. quotes, field notes, text excerpts, photographs) to substantiate analytic findings	10-24
31 32	Discussion			
33 34	Intergration with prior	#18	Short summary of main findings; explanation of how findings	24-27
35	work, implications,	<u></u>	and conclusions connect to, support, elaborate on, or challenge	,
36 37	transferability and		conclusions of earlier scholarship; discussion of scope of	
38 39 40	contribution(s) to the field		application / generalizability; identification of unique contributions(s) to scholarship in a discipline or field	
41 42 43	Limitations	<u>#19</u>	Trustworthiness and limitations of findings	27
44 45	Other			
46 47 48 49	Conflicts of interest	<u>#20</u>	Potential sources of influence of perceived influence on study conduct and conclusions; how these were managed	28
50 51 52 53	Funding	<u>#21</u>	Sources of funding and other support; role of funders in data collection, interpretation and reporting	28
54	The SROR checklist is distri	buted v	with permission of Wolters Kluwer © 2014 by the Association of Ar	nerican
55 56			as completed on 29. July 2020 using <u>https://www.goodreports.org/</u> ,	
57 58	-		n collaboration with <u>Penelope.ai</u>	-
59 60	For pe	er revie	w only - http://bmjopen.bmj.com/site/about/guidelines.xhtml	

BMJ Open

Perceptions and experiences of people regarding COVID-19 pandemic in Nepal: A qualitative study using phenomenological analysis

Journal:	BMJ Open
Manuscript ID	bmjopen-2020-043312.R1
Article Type:	Original research
Date Submitted by the Author:	09-Nov-2020
Complete List of Authors:	Bhatt, Navin; Nyaya Health Nepal, Bayalpata Hospital Bhatt, Bandana; Government of Nepal Ministry of Health and Population, Department of Health Services Gurung, Soniya; Tribhuvan University Institute of Medicine, Central Department of Public Health Dahal, Suresh; BP Koirala Institute of Health Sciences Jaishi, Amrit; BP Koirala Institute of Health Sciences Neupane, Bandana; Government of Nepal Ministry of Health and Population, Nepal Health Sector Support Programme (NHSSP)/DFID Budhathoki, Shyam; Golden Community
Primary Subject Heading :	Global health
Secondary Subject Heading:	Infectious diseases, Public health
Keywords:	Public health < INFECTIOUS DISEASES, COVID-19, INFECTIOUS DISEASES

SCHOLARONE[™] Manuscripts



I, the Submitting Author has the right to grant and does grant on behalf of all authors of the Work (as defined in the below author licence), an exclusive licence and/or a non-exclusive licence for contributions from authors who are: i) UK Crown employees; ii) where BMJ has agreed a CC-BY licence shall apply, and/or iii) in accordance with the terms applicable for US Federal Government officers or employees acting as part of their official duties; on a worldwide, perpetual, irrevocable, royalty-free basis to BMJ Publishing Group Ltd ("BMJ") its licensees and where the relevant Journal is co-owned by BMJ to the co-owners of the Journal, to publish the Work in this journal and any other BMJ products and to exploit all rights, as set out in our <u>licence</u>.

The Submitting Author accepts and understands that any supply made under these terms is made by BMJ to the Submitting Author unless you are acting as an employee on behalf of your employer or a postgraduate student of an affiliated institution which is paying any applicable article publishing charge ("APC") for Open Access articles. Where the Submitting Author wishes to make the Work available on an Open Access basis (and intends to pay the relevant APC), the terms of reuse of such Open Access shall be governed by a Creative Commons licence – details of these licences and which <u>Creative Commons</u> licence will apply to this Work are set out in our licence referred to above.

Other than as permitted in any relevant BMJ Author's Self Archiving Policies, I confirm this Work has not been accepted for publication elsewhere, is not being considered for publication elsewhere and does not duplicate material already published. I confirm all authors consent to publication of this Work and authorise the granting of this licence.

terez on

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

PERCEPTIONS AND EXPERIENCES OF PEOPLE REGARDING COVID-19 PANDEMIC IN NEPAL: A QUALITATIVE STUDY USING PHENOMENOLOGICAL ANALYSIS

Navin Bhatt^{1*}, Bandana Bhatt², Soniya Gurung³, Suresh Dahal⁴, Amrit Raj Jaishi⁴, Bandana Neupane⁵, Shyam Sundar Budhathoki⁶

¹ Nyava Health Nepal, Bayalpata Hospital, Achham, Nepal

² Department of Health Services, Ministry of Health and Population, Kathmandu, Nepal

³ Central Department of Public Health, Institute of Medicine, Tribhuvan University, Kathmandu,

Nepal

⁴B.P. Koirala Institute of Health Sciences, Dharan, Nepal

⁵Nepal Health Sector Support Programme (NHSSP)/DFID/Ministry of Health and Population,

Kathmandu, Nepal

⁶Golden Community, Lalitpur, Nepal

*Corresponding Author

Dr. Navin Bhatt

^shle) Bayalpata Hospital (Nyaya Health Nepal/Possible)

Sanfegabar-07, Achham, 10705, Nepal

Email: n.navin.bhatt@gmail.com

Word Count: 6,538 words

Objectives

Perceptions of people regarding COVID-19 greatly influences their health behavior in terms of seeking public health services. This helps the government in planning appropriate public health strategies. Therefore, this study intends to explore the perception of people towards COVID-19 and their experiences during the pandemic in Nepal.

Design, Setting and Participants

This qualitative study was conducted among the public in Kathmandu, Kanchanpur, Bajura, and Jhapa districts of Nepal. Eight focus group discussions and 40 in-depth interviews were conducted by using a maximum variation sampling method.

Results

The findings were organized into the following themes: General understanding of COVID-19, Disease prevention, Source of information and misconceptions, Expectation and challenges; and Personal and societal consequences of COVID-19, social distancing and lockdown. There was a good general understanding among respondents about COVID-19, personal preventive measures, and population-level strategies. They responded that the use of masks, sanitizers, handwashing, and proper lockdown would help to prevent the disease. The vital role of media in increasing awareness was acknowledged by the respondents. Participants also expressed concerns over the misleading spread by some media. The lack of social interaction, isolation, loss of income were raised by the participants to potentially lead to psychological consequences. Inadequate Personal Protective Equipment (PPE), underprepared health system, unorganized public quarantine centers, and public violation of lockdown were raised as concerning issues faced by health care workers and public during the study period.

Conclusions

People believed that using personal protective measures, maintaining hygiene, and adhering to physical distancing helps in preventing the disease. Participants expressed that the conflicting public health messages that come from different sources of information are deemed misleading,

especially in this pandemic. This research highlights key messages that are useful as people's perspectives in designing population-level measures in the future.

KEYWORDS: COVID-19, Nepal, social distancing, lockdown, perception, social discrimination, stigma, psychological impact, focus group, interview

STRENGTHS AND LIMITATIONS:

- Representation of participants from diverse backgrounds
- A large number of participants interviewed in a short period of time abiding preventive measures and safety guidelines
- Use of the phenomenological approach has enriched the evidence generated from the lived experiences of people
- Children and the elderly population excluded from the study due to the possibility of increased risk of COVID-19
- Hesitancy of participants to participate in the focus group discussions due to different stages of lockdown and disease outbreak in different parts of the country

INTRODUCTION

The Coronavirus disease 2019 or COVID-19 is a newly discovered infectious disease, first seen in December 2019 at Wuhan city of Hubei province, Central China. A rapid spread with a high transmission rate and substantial deaths have been observed worldwide affecting 216 countries, areas or territories already [1, 2]. The World Health Organization (WHO) declared the COVID-19 outbreak as a global pandemic on March 11, 2020 [3]. In Nepal, the first case was confirmed on 23rd January 2020 [4], in a person who had returned from Wuhan [5]. It was also the first recorded case of COVID-19 in South Asia [6]. The total cases in Nepal reached 188883 as of November 6 2020, with 1070 mortalities [4].

Countries around the world are implementing different measures, from local quarantines to travel restrictions, to prevent widespread of the virus [7]. Nepal is a risk zone for Covid-19 due to its

weak health system and porous borders with India [8]. The government of Nepal took various preparedness measures ranging from establishing and strengthening the health desk at International Airport, Nepal-China and Nepal-India borders, designating COVID-19 hospitals- to prevent and control infection and provide critical care where available, procuring and stockpiling personal protective equipment (PPE), laboratory items, and ventilators to allocating spaces for quarantine purposes throughout the country. Moreover, the risk communication protocol was developed, prevention and protection messages were disseminated in local languages, and case investigation and contact tracing were carried out. The surveillance systems, screening at point of entries (POE), and community level screening and testing were also strengthened and the Rapid Response Team (RRT) was mobilized [9]. On 20 March 2020, the government of Nepal enforced a complete lockdown of the country that included the suspension of international and domestic flights, restrictions on movement and mass gathering, and closures of the schools and colleges, businesses and services apart from those considered essential. People were urged to stay at home maintaining a social distance [10].

The unintended effects among people at all levels are many, ranging from anxiety/stress to reduced freedom on daily living, and from fear of the unknown to loss of income sources [11]. It has been reported that the strict and prolonged lockdown has various effects such as effects on maternity services and rise in maternal deaths, effects on mental health and rise in suicide cases, effects on children and adolescents, rise in domestic violence, impact on routine health services like child health and immunization, impacts on logistics and supply management, and impacts on farming [12]. A study conducted in Nepal showed that 41.9% of health workers had symptoms of anxiety, 37.5% had depressive symptoms, 33.9% had symptoms of insomnia, and more than half of the health workers faced stigma [13].

A study in India reported that the knowledge and practice of COVID-19 among people is good but still there was a gap in right perception [14]. Similarly, in the United States and the United Kingdom, people had important misconceptions about COVID-19 whereas, in Nepal, a study reported that the overall knowledge of COVID-19 was high and the majority of people had a positive perception towards universal safety measures [15].

The future trajectory of the COVID-19 pandemic largely depends on the behavior of people [16]. With increasing research conducted around COVID-19, there are some evidence regarding the

transmission of COVID-19, risk factors, preventive methods, and health-seeking behavior of people [14-17]. However, there is still a dearth of relevant research found that is conducted at the population level in the context of Nepal, which is based on people's real experiences of living in the pandemic situation [18]. Understanding the perception people have about the disease, hearing about people's experiences during this pandemic, and using this evidence to inform policy could help the country to design preparedness plans and preventive strategies for the future. Therefore, this study aims to explore the perceptions that people have towards COVID-19 and their experiences about the social distancing measures applied by the government during the COVID-19 pandemic in Nepal.

METHODS:

Study Design

The phenomenological approach of qualitative research design was used due to lack of previous studies on the topic for Nepal. The use of phenomenological approach helped explore and understand people's own perspective and description of the events from their own real experiences [19]. This approach was also instrumental in identifying key topic areas and interview guide for data collection based on the preliminary interactions with the research participants. This study was conducted from March to June, 2020.

Researcher characteristics and reflexivity

The interviewer team comprised of experts from different health fields that included two public health researchers, two medical doctors, and one postgraduate resident who had the experience of conducting the qualitative research design. Before the data collection, an online video meeting was conducted for all the members of the research team on interviewing, facilitating, recording, note-taking and transcribing. The research team and the research participants were not familiar with each other, personally and professionally.

Study sites

Based on proximity to greater risk factors of an outbreak in Nepal and to include diverse population from different geographical regions of Nepal having heterogeneity of health facilities, culture, tradition, people's behavior, and geographical access to the effective health services, Kathmandu,

Kanchanpur, Bajura and Jhapa districts were selected purposively. The population profile of the districts is described in supplementary file 1. The location of the study sites in different districts is listed in Table 1. The municipalities in the district were conveniently selected and wards were selected randomly.

Table 1: Location of study sites

Province	Districts	Municipality	Ward	Local address
			number	
Bagmati	Kathmandu	Kathmandu	7	Chabahil
Pradesh		Metropolitan City		
Sudurpashchim	Kanchanpur	Bhimdatt	2	Mahuliya/Ultakham
Pradesh		Municipality		
Sudurpashchim	Bajura	Budhiganga	5	Thuma
Pradesh		Municipality		
Province	Jhapa	Mechinagar	11	Dhaijan
Number 1		Municipality		

Study Population and sampling technique

After the random selection of the wards, as per the regulation by the Government of Nepal to prohibit the large gathering of people at a place as a preventive measure for the COVID-19 outbreak, each focus group discussions (FGD) consisted of 6 people who were placed at a one-meter distance from one another in open space. Additionally, face masks were provided to the participants, and alcohol-based hand sanitizers were made available to each of the focus groups to further reduce the risk of exposure.

The participants that represented diverse backgrounds in terms of gender, profession, education, geography, and social status, were selected using a maximum variation sampling method. We announced participant recruitment for the study through local social networks and invited potential participants aged 18 to 60 years to participate in the FGD. For the FGD, a maximum of one participant was included from a house on a voluntary basis. For the in-depth interview (IDI), individuals who were at the forefront in the community such as the healthcare workers (doctors, nurses, laboratory workers) of the local hospital, security personnel (Nepal Police, Nepal Army,

Armed Police Force), media personnel, school teachers, local leaders, female activists, human right advocates, local public health experts, students, shopkeepers, drivers and daily wage laborers were selected for the participation. These people are at greater risk of transmission of COVID-19 and most of them are directly involved in the management of the situation. Data was collected in a community setting either at the household or at a place preferred by the research participants. A further collection of data was ceased after the saturation of data. Data was considered to have reached saturation when the response from participants had started repeating or no new themes emerged.

Criteria for sample selection

Among the respondents to our call, we enrolled all people who were willing to participate in the study and provided the written informed consent in the study. People who were less than 18 years or more than 60 years, pregnant, or those suffering from infectious disease or having underlying conditions were excluded from the study.

Data collection methods and technique

Focus group discussions were conducted using a topic guide, involving a moderator responsible for guiding the discussion and a note-taker responsible for taking notes, noting down non-verbal responses, and ensuring the tape-recording. A total of 8 FGDs were conducted, 2 in each district. Each FGD lasted for 60-90 minutes on average. The In-depth interview was conducted by a single researcher using the interview schedule comprising of open questions on COVID-19, and personal experiences of living during the pandemic. After obtaining informed consent, the interview was conducted at a location convenient for the respondent. A total of 40 IDIs were conducted, with each IDI lasting for 30-45 minutes on average.

The discussions and interviews in Kanchanpur and Bajura districts were conducted in the local (Doteli/Pahadi) language although respondents tended to mix Doteli and Nepali languages during the interviews, whereas, in other study districts, Nepali language was used, and were tape-recorded. The data was collected for a duration of 2-weeks. After completion of the data collection, the tape-recorded discussions and interviews were transcribed directly into the English language by an expert language translator.

Page 9 of 47

BMJ Open

The validation of the tool was ensured by the Item Objective Congruence (IOC) and consultation with the experts. A pre-testing, consisting of one FGD and four IDIs was conducted prior to the study, and the changes required were incorporated. The trustworthiness of the data was met through triangulation of different aspects of data collection: i) among different respondents, ii) using different methods of data collection such as IDIs and FGDs.

Ethical consideration

Ethical approval was obtained from the Ethical Review Board of the Nepal Health Research Council prior to the conduction of the study (Ref. No. 2124). Informed consent was taken with all the participants before the interview/discussion took place. The participants were assured of their privacy and confidentiality, and that the data collected would only be accessible to the research team. Participants were informed of their right to refuse to participate in the study or withdraw from the discussion at any time. At the end of each FGD and IDI, participants as well as other interested people who were available at the data collection hubs were given pamphlets containing essential and evidence-based information on COVID-19 supplemented with ways of protecting their mental and psychological health.

Data processing and analysis

The collected data from the focus groups and interviews were transcribed verbatim. A member of the research team, conversant in Doteli, Nepali, and English language cross-checked the transcripts for accuracy and language translation consistency.

Colaizzi's phenomenological analysis method was used to analyze the transcript. The analysis included steps such as familiarization, identifying significant statements, formulating meanings, clustering themes, developing an exhaustive description, producing the fundamental structure, and seeking verification of the fundamental structure [20]. Two researchers were involved in independently reviewing the data and formulating the themes after summarizing and extracting the meaningful contents, bracketing the pre-suppositions of the researchers.

Patient and public involvement

Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this study.

RESULTS

A total of 8 FGDs were conducted in 4 districts: Kathmandu Metropolitan City-7, Kathmandu; Bhimdatt Municipality-2, Kanchanpur; Budhiganga-5, Bajura; and Mechinagar-11, Jhapa, comprising of 24 males and 24 females above 18 years of age. Similarly, 40 IDIs were also conducted among people from these districts. The baseline characteristics of the participants are given in Table 2.

Variable		FGD Par	ticipants	IDI Partici	pants
		Number	(%)	Number	(%)
Age Group	18-30	12	25	12	30
	31-40	18	37.5	14	35
	41-50	10	20.83	8	20
	51-60	8	16.67	6	15
Sex	Female	24	50	18	45
	Male	24	50	22	55
Religion	Hindu	30	62.5	24	60
	Buddhist	8	16.67	8	20
	Muslim	4	8.33	4	10
	Others	6	12.5	4	10
Marital Status	Single	18	37.5	15	37.5
	Married	30	62.5	25	62.5
Ethnicity	Brahmin	14	29.17	12	30
	Chhetri	12	25	12	30
	Indigenous	12	25	9	22.5
	Others	10	20.83	7	17.5
Highest level of	Did not go to	12	25	5	12.5
Education	school				
	Grade 10 or below	9	18.75	8	20
	Grade 12	7	14.58	8	20

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

	Bachelor	12	25	14	35
	Masters and above	8	16.67	5	12.5
Respondent type	Teachers	3	6.25	4	10
	Students	5	10.41	4	10
	Security personnel	5	10.41	4	10
	Head of household	5	10.41	4	10
	Leaders	6	12.5	8	20
	Health workers	7	14.58	8	20
	Homemaker	7	14.58	2	5
	Others	10	20.83	6	15
Resource Setting	Rural	24	50	20	50
	Urban	24	50	20	50
Geographical location	Himalayan region	12	25	10	25
	Hilly region	12	25	10	25
	Terai region	24	50	20	50

The responses from the IDIs and FGDs were classified into five broad themes. Within each broad theme were several sub-themes. The themes and subthemes are summarized in Table 3. All verbatim and quotes by the respondents can be found in supplementary file 2.

Table 3: Participants' perceptions and experiences during the COVID-19 pandemic

Theme	Subthemes
General understanding of COVID-19	Origin of the disease
	Cause of the disease
	Mode of transmission
	Threats and risk groups
Prevention of disease	Information regarding prevention
	Eating habits
	Sanitation
	Mask and its use

	Personal Protective Equipment (PPE)
	Lockdown
	Awareness program
Source of information and misconceptions	Role of media
	Credibility of news
	Rumors and fallacies
Expectation and Challenges	Inadequate PPE
	Health system management
	Violation of lockdown
	Demand of people
	Quarantine
Personal and societal consequences of	Social discrimination and stigma
COVID-19, social distancing and	Lack of social interaction
lockdown	Economic loss
	Change in lifestyle
	Psychological impact

Theme 1: General understanding of COVID-19

Participants mentioned China as the origin of COVID-19. A few expressed it being a bioweapon made by powerful countries. When asked about the cause of the disease, the participants believed that it is caused by a virus and is communicable through droplets during sneezing and coughing.

"...we have been listening about this for about 1 month, so I think it can be transmitted through droplets from mouth and nose during coughing and sneezing. Also touching infected area can transmit the disease." - **FF2**

Participants agreed that people with low immunity, children, old people, and the diseased (asthma, heart disease, liver disease, and kidney disease) are more at risk.

Theme 2: Prevention of disease

BMJ Open

Participants reported using masks, washing hands or using sanitizer, and maintaining social distance will prevent the disease. Similarly, participants also reported that maintaining at least onemeter distance during the conversation with people was necessary. Some said that bathing after returning from the market and changing clothes regularly could prevent transmission.

"One thing I am still not sure about the mask, some say surgical masks, some say N95, and some say a mask cannot stop the infection, it's worthless. [laughs...] But I am still using my old mask when I go out. I believe a mask can prevent its (COVID--19) transmission to a significant level." - FM5

Participants believed that the government is trying its best to prevent transmission, but it is not adequate. They thought the lockdown and border closure were some of the praiseworthy steps of the government to prevent the spread of the disease. It was suggested that enforcing strict lockdown, blocking of borders, and social distancing were the most appropriate measures to limit the transmission of this disease. Lockdown would restrict people from moving and carrying the disease to different areas. However, the need for alternatives to lockdown was also suggested as it has created much havoc in the country and would heavily degrade the economy.

The participants thought that still many people especially in the village were not aware of the disease but were frightened. So, they suggested increasing awareness programs. They also requested media to play a positive role in providing informative programs rather than reporting only the rising cases and deaths of the people.

Theme 3: Source of information and misconceptions

Participants had heard about the disease from television, radio, newspapers, and social media. They were thankful to different media for reporting news from all around the world that helped them to get information about the COVID-19, its transmission, prevention, and day to day situation in and around the country.

People argued that all the information that came through media was not reliable; especially that of social media, it contained many rumors regarding the COVID-19 cases in Nepal. The Facebook pages and some online news portals had more false information.

"No...it's not always true. Some of the negative news spread by media makes people anxious and terrified rather than making them aware. I am very much terrified by the scenes of dead bodies shown by the news." - **FF9**

Rumors and fallacies

There were varied perceptions regarding COVID-19 about its origin and its survival. Participants blamed different non-vegetarian food items to be the source of infection. They thought that consuming meat and eggs can cause this disease and suggested people to avoid raw consumption. Moreover, they agreed on the idea of low survival of the virus in hot temperatures. It was also believed that Nepalese people are immune to the virus and would not be affected easily. In addition, they argued on the idea of turmeric, onion, tea, and alcohol in preventing the disease.

Theme 4: Expectations and challenges

Participants argued on the effectiveness of the government interventions, such as tracing and testing were not being adequately performed. The health workers were not provided with adequate Personal Protective Equipment (PPE) which should be the first priority of the government.

Health workers said that expectations had not been met; fear was palpable amidst them due to inadequate PPE that made them hesitant to readily provide treatment to the patients. When there was a sudden shortage of masks, and other PPE, the challenges were added. Health workers with inadequate PPE felt extremely insecure to check patients. People lied about their travel history fearing doctors may not treat them. This was discussed to cause an increased risk of transmission.

"Well, we are always ready to serve patients. But, we have not been provided with adequate protective measures. This would indeed be more dangerous as a single health worker can transmit the disease to hundreds of people at a time." - IF12

People suggested conducting the mass screening, contact tracing and testing, and providing sufficient ventilators to hospitals in different parts of Nepal. They also said to seal the borders very effectively. However, people also questioned the government regarding its functioning, as they condemned the activity of some of the government officials and non-exposed non-frontline staff on misusing the N95 masks and PPE.

BMJ Open

"It's disastrous that the healthcare workers and other frontline personnel are not getting adequate PPE to wear. They have been using the same surgical mask for many days; haven't got any other protective equipment. But the government officials and the ministers have been using N95 mask even at home" – FM7

Demand of people:

Participants said that the people had kept many expectations from political parties, health workers and security forces; of them, some were genuine concerns, but the government had failed to address them. However, the political leaders argued that most of the demands had been fulfilled whereas some of the demands were ambitious and not important at the moment.

Furthermore, participants lamented problems they were facing and requested the government and the leaders to fulfill their demands to survive their daily livelihood.

"....I am a patient of sugar (Diabetes Mellitus) and pressure (hypertension)...I want to go to the hospital, but I cannot go easily...the government cannot manage services for us. It is paradoxical to let people die from other diseases, to save people from the coronavirus." – FM16

More or less, people were aware of the COVID-19. So most of them had been staying at their homes. However, some had been violating the lockdown rules. People had great expectations from the police to help their community by taking strict actions against those who were violating rules.

Participants had opined that people who tried to break the rules of the lockdown must be punished since they could transfer disease to others. However, some participants considered it was not completely their fault as the efforts of the government were not enough to help the general public.

"I have been working as a frontline health care worker in the nearby hospital. While going to the duty station by my motorcycle, the authorities are not allowing me to go, even if I show my identity card. Instead, they beat me with sticks and abused me verbally for breaking the lockdown rules." -IM19

Moreover, participants were worried about the people who had started walking on foot for many days to return to their home and requested the government to take up needful actions to let them reach home easily, despite the lockdown.

"We are worried about those people (who are walking to reach their home)... (pause)...we can't imagine the journey they have started to walk from east to west. It would take months for them to reach their home. They are all daily wage workers and have no money to sustain. They should be supported." – FM20

Participants shared that the government had been trying but the designated quarantine facilities were not sufficient and effective. They suggested increasing the quarantine facilities and convincing people to stay in quarantine. They kept the view that the health services provided in quarantine and isolation centers were not adequate.

"...government is developing quarantine homes, but they are not appropriate. The protective measures have not been applied sufficiently." -FF18

However, participants were worried about the people who were stuck in lockdown and quarantined at the border areas.

"It is troublesome for people who are stuck at the borders. What would happen to them if they remain in tents at the border? They are thousands in number. There is a high chance of transmission of the disease in the crowded quarantine facilities." – FF21

Moreover, the security personnel were worried about their health and requested the government to provide adequate PPE and let them be tested for the disease.

Theme 5: Personal and societal consequences of COVID-19, social distancing and lockdown Social discrimination and stigma:

Participants reflected their views on social discrimination and stigma in their communities. The healthcare workers were expelled from their rent houses; moreover, they were denied proper food

and lodging in the hotels. The COVID-19 positive cases were disrespected in the community. The people who returned from abroad were shunned by the community people. The people who were sent home from quarantine centers after they tested negative for PCR tests, were not permitted to enter their homes. The community people strongly opposed the local government's decision to make a quarantine center in their village. The people who marched to walk a long way to their home by foot were prohibited to walk near the streets and highways. In addition, participants reported that after a significant number of positive cases increased in a religious gathering, people started blaming religious groups for spreading the COVID-19.

The stigma was prevalent even among the local government bodies and police personnel. Trucks of vegetables and fruits were destroyed by the local administration after they came to know that those agricultural products came from the COVID-19 affected areas. Similarly, the police personnel manhandled the persons who came from abroad and stayed at home even if they tested negative for the PCR test.

"The house owner has told me to leave the rented room as soon as possible, blaming me to be a major source of COVID-19 spread as I am a health worker. Where should I go all of a sudden? I feel regretful; I made a wrong decision by choosing this profession." – IF24

Lack of Social interaction:

Participants stayed at home due to social distancing and social isolation policy, except a few directly involved frontline workers such as healthcare workers and security personnel. They agreed that social interaction had decreased significantly and they were feeling socially isolated.

"It's been so long that we have been staying at home. There's the same daily routine. We used to play carom and cards at the Chowk (junction)." – *FM26*

However, a variation was found between the participants in rural and urban areas in terms of social interaction. The participants in urban areas said that they were strictly prohibiting any interaction with others. But people in villages or rural areas had different views. They said that they were meeting people in the neighboring houses, though the interaction had decreased in comparison to

the pre-lockdown period; and also, they would maintain a distance of at least one meter from others.

"There are only houses and buildings with a high density of people living in this area. So we are prohibiting us from going anywhere." – *FF11*

Economic Loss:

Participants had varied views on the economic loss due to lockdown and social isolation policy. The daily wage workers were suffering the most who lamented that they did not have enough money to sustain their livelihood. They were worried about their family members as they were the only breadwinners in the family.

"...what should I say sir (to the interviewer)...this lockdown has been a catastrophe for us. I used to earn money after working daily. I worked at the people's house. I did everything...from cleaning pots and pans to performing daily chores, and earned some money... (tears in eyes seen)...Now nobody is allowing even to walk anywhere." – IM28

Besides, people brought into concern that there was a significant loss in their business due to the closure of the market. There were a few government officials who were not affected economically by the lockdown and social distancing, as the government had been paying them the monthly salary as usual.

Changes in lifestyle:

A significant variation in the lifestyle was found among people from the urban and rural areas, affected by lockdown and social distancing. The people from the urban area were worried about their sluggish lifestyle since the start of lockdown.

"We have become claustrophobic seeing the four walls of this home, daily. There is no place to go. No parks and open spaces nearby...people and media say that we should not leave our home...we have been doing even morning walk in a single room, going from one corner to another." – FF18

BMJ Open

However, people in villages and rural areas had different experiences. They said that though they were not going anywhere they had still plenty of work to do in their fields and were busy.

"This is the time for harvesting the wheat and prepare for planting the paddy. So, we are busy with it. Though we have been maintaining some distance among us, we haven't stopped our work." – *FM32*

On one hand, a few participants said that lockdown had created a good environment to be with family members together, and had utilized their time productively; whereas, a few were fed up with prolonged and extended lockdown and were worried about the change in their lifestyle.

Psychological Impact:

Some felt anxiety and a fear of being infected. Some were stressed about being isolated in the lockdown. They had a fear that if the disease spreads in the village areas of Nepal, many people would die as there were no adequate health care facilities. One of the participants expressed that her children were fearful when they constantly listen to their parents talking about COVID -19 and its threat.

"My son is a doctor. He is working in the COVID-19 hub hospital in the main city, where so many positive cases have been found. I fear that my son would be infected with it (COVID-19). Meanwhile, I can't say to him to leave the job and come home. I don't like speaking with anyone these days. Boredom and loneliness have been my friends." – FF6

Besides, the healthcare workers said that they were fearful of treating COVID-19 positive and suspected cases, as they were not provided with adequate PPE. Moreover, they expressed that they haven't gone their home for months due to fear that they may transmit the disease to their family members, and that has made them lonely. Similar was the response from the security personnel who was fearful to work in the field away from home.

People whose family members were in foreign countries seemed to be more terrified and anxious. Moreover, people also claimed that the media played a negative role and the continuous information provided by it increased fear and anxiety among people.

DISCUSSION

This study explored the perceptions of the public towards COVID-19, and their experiences during the lockdown on lifestyle, mental health, and social life. The study showed that participants possessed good knowledge about the origin, transmission, cause, and prevention of COVID-19. They were aware that using masks and sanitizers, washing hands, and maintaining social distance could help them prevent the disease, and they believed that awareness campaigns in rural areas were necessary. Mass media played a vital role in raising awareness among people; however, the need of checking the credibility of all information spread by social media was stressed by some participants. The finding of this research is in line with the study conducted in Bangladesh [21] where most of the participants were aware of the COVID-19 pandemic, and their source of information was mass media. In the United States [16], most people exhibited good knowledge about the mode of transmission, causes, and symptoms of the COVID-19. In this study, participants mentioned the potential risk factors of the disease, such as age, and comorbidities, which were similar to the report published by the Center for Disease Control and Prevention (CDC) [22]. Similarly, the study conducted in Uganda [23] reported that awareness and attitude played an important role in preventing the spread of COVID-19. Safe water, sanitation and hygiene are a must for defending against this virus [24]. However, debates are still ongoing on the evidence of the face mask's use in prevention [25]. One of the studies suggests that early public interest in face masks may be an independently important factor in controlling the COVID-19 epidemic on a population scale. One illustrative region is Hong Kong, where the public interest in face masks is among the highest due to the perception of masks preventing the disease transfer [26]. The use of surgical masks in high risk and crowded areas can provide effective protection [25].

The perception of coronavirus mediated by the type of information people hold and lack of information about it would be an additional barrier that would increase the probability of the infection [27]. Similarly, a study conducted in India reported that most people have good knowledge and right practice towards COVID-19, but gaps persist in the right perception of myths and misconceptions. It suggests providing educational programs to resolve misconceptions about COVID-19 and improve the knowledge, perception and practices [14]. Moreover, there was good knowledge on the situation of COVID-19 but poor perceived knowledge on preventive measures [28].

A study conducted in Nepal revealed that the knowledge of people about COVID-19 was high, but there was a gap in knowledge on social distancing and quarantine. There was a positive perception towards universal safety measures of COVID-19, but there existed negative perceptions such as it attacked only older people and coughing into the elbow was not good practice to prevent the spread of the virus [15].

Participants also believed in: survival of the virus in hot temperatures, meat and egg consumption causing the disease, and the potential role of turmeric, onion, tea, and alcohol in preventing it. Similar to it, a study in Afghanistan depicts 89% of the participants believing that during the outbreak, eating well-cooked and safely handled meat is safe [29]. Similarly, a study conducted in India showed that social media played a major role in spreading awareness among the public, however, the spread of fake news was also reported, highlighting racism issues during the epidemic which created panic and negative influence on people's mental health and psychological wellbeing [30,31]. Similarly, one study revealed that exposure to the sun or temperature more than 25 degrees Celsius prevents the disease and cannot spread further in hot and humid climates. Other studies also reported misconceptions around the disease, such as people cannot completely recover from the COVID-19 once they suffer, drinking alcohol prevents the disease, coronavirus is transmitted through mosquito bites, hand dryers are enough for killing SARS-CoV-2, antibiotics are effective for the treatment of COVID-19, garlic and honey help in curing the disease, the acid in our stomach kills the virus if we drink enough water, clapping hands create vibrations that destroy the virus, religious chants can kill the virus [32,33], and low-income countries are more immune to COVID-19 [34]. Also in a study from Australia, 42% of participants thought that being unable to hold your breath for 10 seconds without coughing was an indicator of having the virus. Among the participants, 83% held at least one COVID-19 related misconception with the most frequent being that the virus was created in a laboratory (36%) [35].

This research has also highlighted the expectations of the people and challenges of the government to control the COVID-19 pandemic in Nepal. Inadequate PPE for health workforces, health system mismanagement, lack of sufficient and effective quarantine centers, and the violation of lockdown were some of the challenges during this pandemic situation that were put forward by the participants. Similar to this study, the lack of protective equipment and transportation were the difficulties experienced by rural residents in China during the epidemic [36]. A study conducted in Nepal showed that a shortage of test kit and medical supplies, Personal Protective Equipment,

poor coordination among different tiers of government, and poor reporting were the major challenges in containing COVID-19. The high population density in the urban areas of South Asia makes it difficult for people to maintain social distancing and proper personal hygiene [37]. PPE is essential to reduce viral transmission and prevent the spread of the disease among the health care workers and patients [38,39], but shortage, inappropriate use and misuse are the major problems in the UK [38], and shortage of PPE in high-demand areas like triage and isolation wards of India has resulted in severe problems [39]. A study conducted in Italy revealed that only 13% of physicians reported having access to PPE every time they needed them [40]. In Thailand, contact tracing is most effective but mass screening cannot be afforded by the government [41]. Similarly, a study conducted in Taiwan revealed that testing only symptomatic cases can miss many asymptomatic infections and render contact tracing less effective [42].

Tackling the violation of lockdown rules is one of the biggest challenges for the government. A study has shown that strict mitigation measures if implemented in a timely manner greatly outperform lengthy quarantines and lockdowns [43]. Social distancing is regarded as the most effective measure for mitigation of the disease [44]; additionally, early lockdown reduces the effects of the disease [45]. The experience of China suggested that social distancing is a deliberate effort to slow down the spread of infectious or contagious diseases. Keeping that in mind, most of the countries focused on social distancing and lockdown systems to prevent the spread of the disease [46]. Similarly, participants from a study believed that quarantine, social distancing, and the use of face masks can actually break the chain of COVID-19 spread [47]. In Pakistan, the forced lockdown was not feasible, so it changed into a partial lockdown first and then into a smart lockdown [48]. Therefore, lockdown is a hard choice and challenging in order to maintain essential services [49].

According to a study conducted in Nepal, a long and strict lockdown has some negative effects on many health aspects of people and the community. Many women are facing a barrier in maternal health and data has shown an increase in suicide attempts. Children and students felt stressed due to uncertainty about the future [12]. Quarantine is effective to control the COVID-19 [50], but its effective management is a challenge for the government. On the other hand, isolation and quarantine at home can lead to an increase in abusive behavior [12].

The impact of the pandemic and lockdown on people is huge. People believed that the disease is reducing social interaction, exacerbating the economic crisis, increasing psychological effects

(fear, anxiety, and depression), and also changing the lifestyle of the people in many ways. In rural areas, however, people believed that COVID-19 has not brought considerable changes in their lifestyle. Interestingly, for some participants, lockdown had some positive impacts as well as it has helped them to have quality time with their family members and helped them feel refreshed.

This study showed that COVID-19 has caused so much social stigma and discrimination especially towards health workers, their family members, people coming from abroad, and people living in quarantine. According to UNICEF, COVID-19 is a new disease and there are still many unknowns that cause the stigma in public [51] and anxiety caused by the COVID-19 leads to stigma [52]. The studies showed health care workers, people released from quarantine, returning from travel, and people with the disease and their families also faced social stigma [53]. A study revealed that health care providers working in hospitals and laboratories are discriminated against and are facing difficulties for food and shelters. Neighbors refused to interact with them and showed their displeasure [54]. Similar to this study in Nepal, health workers were expelled from their rooms and faced difficulty in getting food in the hotel. It makes people socially isolated, and hence leaving them angry and depressed [53]. A qualitative study was conducted in Lorestan University of Medical Sciences, Iran to explore the perception of nurses on taking care of COVID-19 patients which revealed that nurses experienced many challenges such as physical fatigue, stress, anxiety, the bad feeling of insufficiency, enclosed in protective equipment during caretaking that all this leads to a decrease in the quality of patients care [55].

Social distancing and social isolation during COVID-19 have affected most people in a negative way. It has reduced social interactions, changed lifestyle, led to economic loss, and resulted in psychological crises. Social isolation increases loneliness which is a risk factor for various psychological conditions [56]. A study conducted in the UK also showed that social distancing and isolation had negative impacts on the mental health and wellbeing of people. It also affects employment, economy, individual's worthiness, and daily routines of people leading to psychological and emotional loss [57](1).

Strengths and limitations

The major strength of this study is the use of a maximum variation sample method which enabled the representation of participants from diverse backgrounds in terms of gender, profession, education, geography, and social status. A large number of participants were interviewed in a short

period of time abiding preventive measures and safety guidelines. Furthermore, the use of the phenomenological approach was instrumental in translating messages from people's lived experiences during this pandemic situation in this research. This study has a wide geographical coverage of study sites covering three out of seven provinces including the capital city of Nepal. The use of qualitative methods may render the findings not generalizable, however, the evidence generated is useful to design quantitative research to understand the burden of issues faced and the impact of the COVID-19 on the population at large. Other limitations include the possibility of having interviews and data collection being influenced by the experiences of the research team regarding COVID-19. Due to different stages of lockdown and disease outbreak in different parts of the country, people were hesitant to participate in focus group discussions and somewhere they were discouraged by the authorities. To address this issue, government-set rules and regulations for the public gathering were followed, i.e. maintenance of one-meter distance, use of masks and sanitizers; and they were ensured of safety and free will to withdraw any time. Similarly, since the children and elderly population were excluded from the study due to the possibility of an increased risk of COVID-19, their views and experiences could not be understood. Moreover, this was a short-term study conducted over a period of two weeks. The long-term experience of the participants may provide a better understanding of people's experiences during the pandemic.

CONCLUSIONS

People believed that the use of masks and sanitizers, frequent hand washing, maintaining social distance, and manageable lockdown helps in preventing the disease. Similarly, social distancing, isolation and economic loss during lockdown increase the risk of psychological problems showing the need for professional counseling. High expectations from people, inadequate supply of PPE, violation of the lockdown, unprepared health system, poor quarantines, and the rumors created by social media are challenges faced by the government during this pandemic. There is a need for improvement in the effective management of the COVID-19.

The findings from this study help in planning policies and generating guidelines that can improve the physical as well as psychological health of the public, including the health care providers, the security personnel as well as the frontline care providers. Further research may help reduce the myths and misconceptions. Based on the local status quo of the pandemic, local governments may be in a better place to administer and implement local social distancing policies. The 3 tiers of

government need to work based on the principle of coordination, cooperation and coexistence to strengthen its health system. There is a need to identify ways to strengthen surveillance, contact tracing, quarantine & isolation centers management, prevention and control of infection through mass awareness and mitigating measures should be strengthened.

ACKNOWLEDGEMENTS

We acknowledge the support received from Mr. Tribhuwan Bhatta and Ms. Pooja Uprety during data collection. The authors thank the participants for their participation in the study.

AUTHOR CONTRIBUTIONS:

NB, BB, SG and SSB conceptualized and designed the study. NB, BB, SG, SD, ARJ contributed to the literature review. NB, SD and ARJ contributed to data collection. NB, BB, SG and SSB contributed to data analysis. NB, BB, SG, BN and SSB contributed to data interpretation. NB, BB and SG wrote the first draft and received input from SD, ARJ, BN and SBB during revision. All authors performed draft editing and final draft preparation. All authors read and approved the final manuscript.

COMPETING INTERESTS

None declared

FUNDING

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

PATIENT CONSENT FOR PUBLICATION

Not required.

DATA AVAILABILITY STATEMENT

All data relevant to the study are included in the article or uploaded as supplementary information.

REFERENCES

- World Health Organization. Coronavirus. 2020. Available: https://www.who.int/healthtopics/coronavirus#tab=tab_1 [Accessed July 23 2020].
- 2. Yuen KS, Ye ZW, Fung SY, *et al.* SARS-CoV-2 and COVID-19: The most important research questions. *Cell Biosci.* 2020;10(1):1-5. doi:10.1186/s13578-020-00404-4
- 3. Cucinotta D, Vanelli M. WHO declares COVID-19 a pandemic. *Acta Biomed*. 2020;91(1):157-60.
- 4. Ministry of Health and Population. Latest update of Nepal: COVID-19. 2020. Available: https://covid19.mohp.gov.np/#/ [Accessed November 7, 2020].
- 5. Bastola A, Sah R, Rodriguez-Morales AJ, Lal BK, Jha R, Ojha HC, et al. The first 2019 novel coronavirus case in Nepal. Lancet Infect Dis. 2020;20(3):279-80.
- Chalise HN, Pathak KP. Situation of COVID-19 Pandemic in South Asia. J Heal Allied Sci. 2020;10(2):11–4.
- Kaplan J, Frias L, McFall-Johnsen M. Our ongoing list of how countries are reopening, and which ones remain under lockdown. *Business Insider*. 2020. Available: <u>https://www.businessinsider.com/countries-on-lockdown-coronavirus-italy-2020-3</u> [Accessed July 20 2020].
- Piryani RM, Piryani S, Shah JN. Nepal's Response to Contain COVID-19 Infection. J Nepal Health Res Counc. 2020;18(1):128-34.
- Government of Nepal-Ministory of Health and Population. Health Sector Emergency Response Plan COVID-19. 2020. Available: <u>https://publichealthupdate.com/health-sectoremergency-response-plan-mohp-nepal/</u>
- 10. Nepal Government. Address to the Nation by Right Honorable Prime Minister KP SharmaOlionControlandPreventionofCoronavirus.2020.Available:

https://mofa.gov.np/address-to-the-nation-by-right-honorable-prime-minister-kp-sharmaoli-on-control-and-prevention-of-coronavirus/ [Accessed July 20 2020].

- Wang C, Pan R, Wan X, *et al.* Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *Int J Environ Res Public Health.* 2020;17(5):1729.
- Mahato P, Tamang P, Simkhada P, *et al.* Effects of COVID-19 during lockdown in Nepal. *Eur J Med Sci.* 2020;2(2):1-5.
- 13. Khanal P, Devkota N, Dahal M, Paudel K, Joshi D. Mental health impacts among health workers during COVID-19 in a low resource setting: a cross-sectional survey from Nepal. Global Health. 2020;16(1):89.
- 14. Narayana G, Pradeepkumar B, Ramaiah JD, Jayasree T, Yadav DL, Kumar BK. Knowledge, perception, and practices towards COVID-19 pandemic among general public of India: A cross-sectional online survey. Curr Med Res Pract. 2020;10(4):153-9.
- 15. Singh DR, Sunuwar DR, Karki K, Ghimire S, Shrestha N. Knowledge and Perception Towards Universal Safety Precautions During Early Phase of the COVID-19 Outbreak in Nepal. J Community Health. 2020; 1-7. doi: <u>10.1007/s10900-020-00839-3</u>
- 16. Geldsetzer P. Knowledge and perceptions of covid-19 among the general public in the United States and the United Kingdom: a cross-sectional online survey. *Ann Intern Med.* 2020;173(2):157-160. doi:10.7326/M20-0912
- Ives J, Greenfield S, Parry JM, Draper H, Gratus C, Petts JI, et al. Healthcare workers' attitudes to working during pandemic influenza: A qualitative study. BMC Public Health. 2009;9:1-13.
- Gohel KH, Patel PB, Shah PM, Patel JR, Pandit N, Raut A. Knowledge and perceptions about COVID-19 among the medical and allied health science students in India: An online cross-sectional survey. Clin Epidemiol Glob Heal. 2020. doi:<u>10.1016/j.cegh.2020.07.008</u>
- 19. Brinkmann S, Kvale S. InterViews: Learning the Craft of Qualitative Research Interviewing. 2nd Editio. Sage; 2009. 354 p.
- 20. Morrow R, Rodriguez A, King N. Colaizzi's descriptive phenomenological method. *Psychologist.* 2015;28(8):643-4.
- 21. Farhana KM, Mannan KA. Knowledge and Perception Towards Novel Coronavirus (COVID-19) in Bangladesh. *Int Res J Bus Soc Sci.* 2020;6(2):76-79.

- 22. Center for Disease Control and Prevention. Assessing Risk Factors for Severe COVID-19
 Illness. 2020. Available: https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/assessing-risk-factors.html [Accessed 20 March 2020].
- 23. Ssebuufu R, Sikakulya FK, Binezero SM, *et al.* Awareness knowledge attitude and practice towards measures for prevention of the spread of COVID-19 in the Ugandans: A nationwide online cross-sectional Survey. *Medrxiv.* 2020;1-28. Available: http://medrxiv.org/cgi/content/short/2020.05.05.20092247
- 24. World Health Organization. Water, sanitation, hygiene and waste management for the COVID-19 virus. 2020:1-9. Available: https://apps.who.int/iris/bitstream/handle/10665/331846/WHO-2019-nCoV-IPC_WASH-2020.3-eng.pdf [Accessed 20 July 2020].
- 25. Feng S, Shen C, Xia N, *et al.* Rational use of face masks in the COVID-19 pandemic. *Lancet Respir Med.* 2020;8(5):434-6.
- 26. Wong SH, Teoh JYC, Leung CH, Wu WKK, Yip BHK, Wong MCS, et al. COVID-19 and public interest in face mask use. Am J Respir Crit Care Med. 2020;202(3):453-5.
- 27. Zegarra A, Chino B, Ames R. Knowledge, perception and attitudes in Regard to COVID-19 Pandemic in Peruvian Population. Salud Ment y Epidemiol en el Sur del Perú. 2020;1-28.
- 28. Jose R, Narendran M, Bindu A, Beevi N, L M, Benny P V. Public perception and preparedness for the pandemic COVID 19: A Health Belief Model approach. Clin Epidemiol Glob Heal. 2020;1-6.
- 29. Raghavan V, Jabbarkhail DN, Ahmady A. HEALTH WORKER'S PERCEPTION SURVEY ON COVID 19: Knowledge, Perception, and Practice Survey of health workers in Eight Provinces of Afghanistan. 2020. Available: https://reliefweb.int/sites/reliefweb.int/files/resources/Health_Worker_s_Perception_Surv ey_FInal_20052020.pdf [Accessed 20 March 2020].
- 30. Kadam AB, Atre SR. Social media panic and COVID-19 in India. *J Travel Med.* 2020;27(3):1-5.
- 31. Ahmad AR, Murad HR. The Impact of social media on panic during the COVID-19 pandemic in Iraqi Kurdistan: Online questionnaire study. J Med Internet Res. 2020;22(5):e19556. doi:10.2196/19556

1		
2		
3 4		
4 5		
6		
6 7		
8		
9		
10		
11 12		
13		
14		
15		
16		
17 18		
19		
20		
21		
22		
23 24		
24 25		
26		
27		
28		
29		
30 31		
32		
33		
34		
35		
36		
37 38		
39		
40		
41		
42		
43 44		
44		
46		
47		
48		
49 50		
50 51		
52		
53		
54		
55		
56 57		
57 58		
59		
60		

32. Menon GI. COVID-19: Busting some Myths. Health and Medicine. 2020. Available from
https://indiabioscience.org/columns/indian-scenario/covid-19-busting-some-myths
[Accessed 20 March 2020].

- Dutta S, Acharya S, Shukla S, *et al.* COVID-19 Pandemic- Revisiting the Myths. *SSRG Int J Med Sci.* 2020;7(5):7-10.
- 34. Roy S. Low-income countries are more immune to COVID-19: A misconception. *Indian J Med Sci.* 2020;72(1):5-7.
- 35. Thomas R, Greenwood H, Michaleff ZA, Abukmail E, Hoffman T, McCaffery K, et al. Examining Australian's beliefs, misconceptions, and sources of information for COVID-19: A national online survey. 2020. doi: <u>https://doi.org/10.1101/2020.07.27.20163204</u>
- 36. Lihua M, Ma L, Liu H, et al. Knowledge, beliefs/attitudes and practices of rural residents in the prevention and control of COVID-19 : An online questionnaire survey. BMC Infect Dis. 2020;1-24. doi: 10.21203/rs.3.rs-22257/v1
- 37. Asim M, Sathian B, Van Teijlingen E, *et al.* COVID-19 Pandemic: Public Health Implications in Nepal. *Nepal J Epidemiol.* 2020;10(1):817-20.
- 38. Cook TM. Personal protective equipment during the coronavirus disease (COVID) 2019 pandemic a narrative review. *Anaesthesia*. 2020;75(7):920-927. doi: <u>10.1111/anae.15071</u>
- 39. Bhattacharya S, Mahbub Hossain M, Singh A. Addressing the shortage of personal protective equipment during the COVID-19 pandemic in India-A public health perspective. *AIMS Public Heal.* 2020;7(2):223-7.
- 40. Savoia E, Argentini G, Gori D, Neri E, Piltch-Loeb R, Fantini MP. Factors Associated with Access and Use of PPE during COVID-19: A Cross-sectional Study of Italian Physicians. medRxiv. 2020;2-20.
- Chaitrong W. Mass-testing not that effective in battle against contagion. The Nation Thailand. 2020. Available: <u>https://www.nationthailand.com/news/30385921</u> [Accessed 20 September 2020].
- Wang CJ, Ng CY, Brook RH. Response to COVID-19 in Taiwan: Big Data Analytics, New Technology, and Proactive Testing. JAMA. 2020 Apr 14;323(14):1341-1342. doi: 10.1001/jama.2020.3151.
- 43. Mayorga AL, Samartino CG, Flores G, Masuelli S. COVID-19 lockdown : if , when and how. Medrix. 2020;1-12.

- 44. Singh R, Adhikari R. Age-structured impact of social distancing on the COVID-19 epidemic in India. *Quant Biol.* 2020;1–9. Available: <u>http://arxiv.org/abs/2003.12055</u> [Accessed 20 March 2020].
- 45. Zhang Y, Jiang B, Yuan J, *et al.* The impact of social distancing and epicenter lockdown on the COVID-19 epidemic in mainland China: A data-driven SEIQR model study. *medRxiv.* 2020: 1-14. doi: 10.1101/2020.03.04.20031187.
- 46. Musinguzi G, Asamoah BO. The Science of Social Distancing and Total Lock Down: Does it Work? Whom does it Benefit? *Electron J Gen Med*. 2020;17(6):17-9.
- 47. Vadivu TS, Annamuthu P. An Awareness and Perception of COVID -19 among General Public – A Cross Sectional Analysis. Int J Mod Trends Sci Technol. 2020;6(04):49-53.
- 48. Rukh L, Nafees M, Khan F. Evaluation of Forced-Lockdown, Partial Lockdown and Smart-Lockdown against COVID- 19 Hazard and Related Problems: An Example from Pakistan. Res gate. 2020. Available: <u>https://www.researchgate.net/publication/340940868_Evaluation_of_Forced-Lockdown_Partial_Lockdown_and_Smart-Lockdown_against_COVID-_19_Hazard_and_Related_Problems_An_Example_from_Pakistan_[Accessed_12_June 2020].</u>
- 49. Sarwal R, Sarwal T. Mitigating COVID-19 With Lockdowns : A Possible Exit Strategy. 2020;1-4. Available: <u>https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3563538</u> [Accessed 12 June 2020].
- 50. Nussbaumer-Streit B, Mayr V, Dobrescu AL, et al. Quarantine alone or in combination with other public health measures to control COVID-19: a rapid review. Cochrane Database of Systematic Reviews. 2020;4(2):013574. doi: 10.1002/14651858.CD013574.
- The United Nations Children's Fund. Social stigma associated with the coronavirus disease (COVID-19). 2020. Available: <u>https://www.unicef.org/documents/social-stigma-associated-coronavirus-disease-covid-19</u> [Accessed 12 June 2020].
- 52. Gupta TK. Social stigma during COVID-19 pandemic. The Himalayan Times. 2020. Available: <u>https://thehimalayantimes.com/opinion/social-stigma-during-covid-19-pandemic/ [Accessed 12 June 2020].</u>
- 53. MAYO CLINIC. COVID-19 (coronavirus) stigma: What it is and how to reduce it. MAYOCLINIC.2020.Available:https://www.mayoclinic.org/diseases-

60

BMJ Open

1	
2	
3	conditions/coronavirus/in-depth/coronavirus-stigma/art-20484278 [Accessed 12 June
4 5	2020].
6	2020j.
7	54. Rakesh Singh, Subedi M. COVID-19 and stigma: Social discrimination towards frontline
8	healthcare providers and COVID-19 recovered patients in Nepal. Asian J Psychiatr.
9	heathcare providers and COVID-19 recovered patients in Nepai. Asian 5 1 sychian.
10	2020;53(102222):1-2.
11 12	55. Galedar N, Toulabi T, Kamran A, Heydari H. Exploring nurses' perception of taking care
13	55. Galedai N, Toulaoi T, Kaillan A, Heydan H. Exploring huises perception of taking care
14	of patients with coronavirus disease (COVID-19): A qualitative study. Nurs Open. 2020;1-
15	9.
16	
17	56. Douglas M, Katikireddi SV, Taulbut M, et al. Mitigating the wider health effects of covid-
18	19 pandemic response. BMJ. 2020;369:1-6. doi:10.1136/bmj.m1557
19 20	19 pandemic response. <i>Divis</i> . 2020,509.1-0. doi:10.1150/011j.111557
20	57. Williams SN, Armitage CJ, Tampe T, Dienes K. Public perceptions and experiences of
22	social distancing and social isolation during the COVID-19 pandemic: a UK-based focus
23	social distancing and social isolation during the COVID-19 pandenne. a OK-based locus
24	group study. BMJ Open [Internet]. 2020 Jul 20;10(7):e039334. Available from:
25	https://bmjopen.bmj.com/lookup/doi/10.1136/bmjopen-2020-039334
26 27	https://omjopen.omj.com/nookup/doi/10.1130/omjopen-2020-039334
28	
29	
30	
31	
32	
33	
34 35	
36	
37	
38	
39	
40	
41 42	
43	
44	
45	
46	
47	
48 49	
50	
51	
52	
53	
54	
55 56	
50 57	
58	

PERCEPTIONS AND EXPERIENCES OF PEOPLE REGARDING COVID-19 PANDEMIC IN NEPAL: A QUALITATIVE STUDY USING PHENOMENOLOGICAL ANALYSIS

Population profile of the study sites:

Based on the heterogeneity of health facilities, culture, tradition, people's behavior, and geography to access effective health services, Kathmandu, Kanchanpur, Bajura, and Jhapa districts were selected purposively. These districts vary considerably in terms of their geography, socio-economic, and cultural characteristics thus enabling us to study the population from different perspectives. The municipalities in the district were conveniently selected and wards were selected randomly. Ward is the smallest administrative unit under the local government in Nepal.

Kathmandu, the capital city in the central part of Nepal, is the representation of the urban population. According to the National Population and Housing Census 2011, the total population of Kathmandu is 1,744,240 occupying 436,344 households. It has a very high population density of 4416 people per square kilometer and low illiteracy of 12 percent. It has the most sophisticated and advanced healthcare services in Nepal and has also reported the highest number of daily COVID-19 cases as well. Kathmandu bears high mobility of heterogeneous groups of people from all over the country. Therefore, this district was selected to provide an urban perspective in the study.

Kanchanpur, the westernmost terai district of Nepal, has a population density of 280 per square kilometer and illiteracy of 27 percent. 451,248 people are currently living in 82,152 households. Furthermore, being on an open border with India, it is also highly vulnerable to the spread of the COVID-19.

Bajura, belonging to rural hilly parts of Nepal, has a very low population density of 62 people per square kilometer and a very high illiteracy rate of 42 percent. The population of this district is very low with 134,912 people living in 24,908 households. It has a poor infrastructure in terms of health

BMJ Open

services with the available health services not easily accessible. It provides us with a rural perspective in this study.

Jhapa is the easternmost port of entry into Nepal from the neighboring country India with which it shares an open border. The district has a population of 812,650 living in 184,552 households. Additionally, a high population density of 506 people per square kilometer and an illiteracy rate of 23 percent makes it quite vulnerable to disease transmission which further amplifies the need for conducting a study in the district.

or occrete review only

PERCEPTIONS AND EXPERIENCES OF PEOPLE REGARDING COVID-19 PANDEMIC IN NEPAL: A QUALITATIVE STUDY USING PHENOMENOLOGICAL ANALYSIS

Ge	neral understanding of COVID-19
• Origin of the disease	• FM1: Well, though I don't know much about its origin, it is
• Cause of the disease	said that it originated from the Wuhan province of China.
• Mode of transmission	
• Threats and risk groups	• FF2: We have been listening about this for about 1 month, so
	I think it can be transmitted through droplets from the mouth
	and nose during coughing and sneezing. Also touching an
	infected area can transmit the disease.
	• FF3:but this disease has spread due to eating raw and
	uncooked meat.
	• MF4: [Sighs]the news I heard yesterday, which said
	people above 60 years are dying in such a great number and
	people with other diseases of lungs, hearts, liver, and kidneys
	are also dying in high number.
	Prevention of disease
• Information regarding	• FM5: One thing I am still not sure about the mask, some say
prevention	surgical masks, some say N95, and some say a mask cannot
• Eating habits	stop the infection, it's worthless. [laughs] But I am still
Sanitation	using my old mask when I go out. I believe, a mask can
• Mask and its use	prevent its (COVID-19) transmission to a significant level.
Personal Protective	
Equipment (PPE)	

Lockdown	• FF6: All these types of diseases have originated from me
• Awareness program	and eggs so we should stop eating meats and eggs
	• FM1:it is very much helpful for a country like Nepal
	prevent the spread of the disease, as compared to develop
	countriesthe government should extend lockdown t
	transmission stops we should also close our border un
	corona fear is out of the world
	 FM7: Media can share true news, condition arou
	different parts of the world, and create awarenessit is r
	enough Wrong information and negative news can ma
	people more scared and fearfulthey should provide t
	right information and conduct informative programs.
	Source of information and misconceptions
• Role of media	• FF8: The worldwide information given by the media h
• Credibility of news	helped us to know about the disease and to stay safe. It h
• Rumors and fallacies	awakened people.
	• FF9: Noit's not always true. Some of the negative ne
	• FF9. Noit's not always true. some of the negative he spread by media makes people anxious and terrified rath
	than making them aware. I am very much terrified by t
	ů v v
	scenes of dead bodies shown by the news.
	• FM10: I think this virus cannot survive in the hot temperatu

	• FM7: Yesterday I was told about alcohol being a preventive measure [laughs] I think it is false. Alcohol rather decreases the immunity of the body.
	Expectations and challenges
• Inadequate PPE	• FM11: Oh my god, poor health workers, they are the real
• Health system management	heroes of this time. We can't even imagine how risky the
Violation of lockdown	job isand also they are not provided with adequate PPE
• Demand of people	 IF12: Well, we are always ready to serve patients. But, we have not been provided with adequate protective measure. This would indeed be more dangerous as a single heat worker can transmit the disease to hundreds of people at time. IM13: The government should also focus on providing a with adequate PPE. No one wants to suffer individually everyone has their family and equally love them as others d We feel very much demotivated because of the government inaction in providing security to us.
	 IM14: There is still the system of referring people to high centers in most of the places (hospitals). This has generate some gaps between people and health workers. Also, the patients who are admitted have been expecting an isolate environment and constant care, which we have not been ab to provide. FM7: It's disastrous that the healthcare workers and other frontline personnel are not getting adequate PPE to weak provide.
	They have been using the same surgical mask for many day

haven't got any other protective equipment. But the government officials and the ministers have been using the N95 mask even at home. I don't know how this system works. This is ridiculous.

- IM15: We are facing different challenges due to lockdown. We have no work and markets are closed...there is a scarcity of food, and they charge us more, we have no money to pay, so how can we continue our livelihood?
- FM16: I am a patient of sugar (Diabetes Mellitus) and pressure (hypertension)...I want to go to the hospital, but I cannot go easily...the government cannot manage services for us. It is paradoxical to let people die from other diseases, to save people from the coronavirus.
- IM17: General population wants us to aware people not to violate lockdown and social distancing. Some have expected to provide security to their shops also. We are concerned for the people who are daily wage workers and want to go back to their villages. Most of them try to break the lockdown.
- FM1: It's not our fault; the government should have applied the lockdown strictly. They have been allowing some people to go and some have been beaten harshly. Though many police personnel have been helping the people, there are a few who are very rude.
- FF18: The health workers, the media, and the government have to inform those people well. Also, some people trying to break the rule have some obligations that should be solved by the government.

- IM19: I have been working as a frontline health care worker in the nearby hospital. While going to the duty on my motorcycle, the authorities are not allowing me to go, even if I show my identity card. Instead, they beat me with sticks and abused me verbally for breaking the lockdown rules.
- FM20: We are worried about those people (people walking to reach their home)... (pause)...we can't imagine the journey they have started to walk from east to west. It would take months for them to reach their home. They are all daily wage workers and have no money to sustain. They should be supported.
- FF21: Government should make proper arrangements and transport them to their respective homes.
- FF18: ...government is developing quarantine homes, but they are not appropriate. The protective measures have not been applied sufficiently.
- *IF12: ...not sufficiently performed, health facilities are for treatment not for quarantine and isolation.*
- FF21: It is troublesome for people who are stuck at the borders. What would happen to them if they remain in tents at the border? They are thousands in number. There is a high chance of transmission of the disease in the crowded quarantine facilities... (Pausing and thinking)... The government should make arrangements for them.

	• FM22: It's a matter of worrya person staying across the border quarantinehis mother died here. He is not allow to come to pay the last tribute to his mother. We should this about them.
	• IM23: Yesterday, a few people came hiding by and cross the border by swimming in the river (pause) aroun thousands who came from the neighboring country, whe the number of cases of COVID-19 is increasing day by da We had to perform our duty with great fear as we didn want to get the disease. We have not been provided we adequate PPE and other protective measures. We would grateful if we are also tested with our swab for Coronaviru
Personal and societal con Social discrimination	• IF24: The house owner has told me to leave the rented roo
and stigma	as soon as possible, blaming me to be a major source COVID-19 spread. Where should I go all of a sudden? I fe regretful; I made a wrong decision by choosing th profession.
	• IM19: Sometimes people make us gods and sometimes the disparage us. Now the hotels are also being reluctant provide us food and lodging. Even the hotel organization herejected making it a quarantine center for the health worked
	• FM9: As all the transport means were shut down, we we impelled to walk on our feet to our homes. The loc prohibited us to walk even on the highways and streets. The

- FM7: I had stayed in the quarantine for 2 weeks and was sent home after my reports came negative. But then also, nobody in my neighbor even bothered to talk with me. They (neighbors) have told their children not to visit my home or play with my children.
- FM4: How can we allow the government to make a quarantine center in our village school? The houses are denser here. Further, there are many other places that are far away from the residential area. Better to make them (quarantine) there. It (government) cannot keep our life at risk.
- FM25: I returned from abroad a few days back. I was all healthy, without any symptoms, but also, I was staying in home-quarantine. But, our neighbors came and scolded me to leave the room saying that I could be a contagion for this (COVID-19). Later they informed the local authorities. The authorities also shouted at me and took me to the police station. Then I was kept there until my PCR report came negative. I thought of coming to my own country at this stage of the crisis. But I had to bear this humiliation in my own place, by our own people.
- FM21: The media have been repeatedly reporting about how deadly this disease is. The mortality is increasing day by day. How can we go to the funeral of positive cases? The dead person has already gone, why should we risk our life? We fear even to touch the dead body.

		•	FF18: We have seen the administration personnel de the transport trucks coming to our place and destroy fruits and vegetables thinking that they may spread (
• Lack of S	Social interaction	•	FM26: It's been so long that we have been staying a There's the same daily routine. We used to play car cards at the Chowk (junction).
	6	•	FF11: There are only houses and buildings with density of people living in this area. So we are produst from going anywhere.
		•	FM27: HmmThe houses are less dense, there are people. We can say hello and hi from our courtyard is (neighbors). Though we less often leave our hou sometimes go to our neighbor's house. We go (laughs)but we maintain a one-meter distance betw Sometimes, we also use the mask, if going a bit for home. But, our movement has not stopped.
• Economi	c Loss	•	IM28:what should I say sir (to the interviewer lockdown has been a catastrophe for us. I used a money after working daily. I worked at the people's h did everythingfrom cleaning pots and pans to perf daily chores, and earned some money (tears a seen)Now nobody is allowing even to walk anywhe
		•	IM29: I have planned to go home tomorrow on foot. here a few months back to work in a factory. But lockdown, the factory is closed. All work has been

	We are not paid money now (pause)we have been waiting so long for the lockdown to resume. I am bankrupt now. I don't have money even for food.
	• FF2: I have a fancy shop in the marketIt's been more than 2-3 months since it has been closed. We did not have earnings for these months. Now, slowly, we are feeling difficulty to manage the expenditure.
	• IM30: Though it's difficult for us in terms of buying things from the market and few things have been expensive due to a shortage in the market. But since we are paid by the
	government (salary), we haven't faced difficulty to run the livelihood.
Changes in lifestyle	• FF18: We have become claustrophobic seeing the four walls of this home, daily. There is no place to go. No parks and open spaces nearbypeople and media say that we should not leave our homewe have been doing even morning wall in a single room, going from one corner to another.
	• FF31: There is no work for me to do. My office is shut down I have no place to go. I have watched almost every movie I have on my list twice. Now I have started feeling bored and lonely. I fear to go outside.
	• FM32: This is the time for harvesting the wheat and prepare for planting the paddy. So, we are busy with it. Though we have been maintaining some distance among us, we haven' stopped our work.

	 FF33: I can go anywhere I want. There are many open spaces and fields. Its all-natural here. I have been going for the walk in the morning. Nothing has changed in my lifestyle, except going for a social gathering. FF34: It has been a long vacation for us. We have been enjoying home, and family time. We have been playing badminton in the morning, and learning household chores. Watching television is a daily schedule for me. I am also reading new books. IM35: I had exams hot at hand. I hadn't prepared well for the exams. It's better that I got plenty of time to prepare for the exams. Good for mehehe (laughs). FM26: The long vacation is crazy. I now learned it's very difficult to sit doing nothing. I used to go to the gym, but it's closed now. It has made me lazy and sluggish. I have increased my weight too. I have started feeling bored.
 Psychological Impact 	• FF31: Yes, I am very anxious and fearful to meet my neighbors and go to a nearby shop. Even if I have a conversation with anyone, I feel anxious.
	• FM36: I feel demotivated and depressed each day. Though I have been preparing for my exams, I am unable to concentrate on myself. I spend my whole day listening to the news and worldwide updates on Coronavirus infection and deaths.

- FF6: My son is a doctor. He is working in the COVID-19 hub hospital in the main city, where so many positive cases have been found. I fear that my son would be infected with it (COVID-19). I don't like speaking with anyone these days. Boredom and loneliness have been my friends.
- IM13: Each day, I start my day praying the god to protect us from the disease. We have not been supplied with adequate PPE. Sometimes, it's not even possible to take every precaution. It has been a month that I have not gone home. I fear that I could transmit the disease to my family members... (Pause)...I had been preparing for the MD exams in my leisure time...but now I have completely stopped preparing. I cannot concentrate on myself.
- IM17: After a long time, I planned to go home this time but my leaves were canceled. All my happiness of meeting my family after so long gone in vain. We are at risk of exposure to people at the quarantine. I fear that I would die before I could meet my family members and my 5 years old daughter. It has been weeks that I haven't eaten and slept properly.
- FF37: My only son...(tearful eyes)...(pause)...just one week before the lockdown began, he went abroad to give his exams for his further studies...the exams got canceled now...he could not return as lockdown had already started here (in Nepal)...He has no place to stay there and money to survive on his own...some of the kind Nepali people have sheltered him till now...there's not a single day that I have slept well and not cried.

FM7: For a long time we are staying at home... and the media have been constantly giving news on the rampantly increasing number of new deaths day by day... The news of people dying, developed countries not being able to control it, etc. are terrifying for us. It has increased my blood pressure. My family and I are not able to sleep properly for a week. for peer terien only

2 3 4	Reporting checklist for qualitative study.							
5 6 7 8	Based on the SRQR guidelines.							
9 10	Instructions to authors							
11 12 13	Complete this checklist by en	tering th	e page numbers from your manuscript where readers will find each of the items listed below.					
14	Your article may not currently	address	all the items on the checklist. Please modify your text to include the missing information. If you are cert	ain that an				
15 16 17	item does not apply, please v	/rite "n/a'	' and provide a short explanation.					
18 19 20	Upload your completed chec	klist as a	n extra file when you submit to a journal.					
21 22	In your methods section, say	that you	used the SRQRreporting guidelines, and cite them as:					
23 24	O'Brien BC, Harris IB, Beckm	an TJ, R	eed DA, Cook DA. Standards for reporting qualitative research: a synthesis of recommendations. Acad	Med.				
25 26 27	2014;89(9):1245-1251.							
28 29				Page				
30 31			Reporting Item	Number				
32 33 34	Title		(C)					
35 36		<u>#1</u>	Concise description of the nature and topic of the study identifying the study as qualitative or	1				
37 38			indicating the approach (e.g. ethnography, grounded theory) or data collection methods (e.g.					
39 40 41			interview, focus group) is recommended					
42 43	Abstract							
44 45		<u>#2</u>	Summary of the key elements of the study using the abstract format of the intended publication;	2				
46 47			typically includes background, purpose, methods, results and conclusions					
48 49 50	Introduction							
51 52	Problem formulation	<u>#3</u>	Description and signifcance of the problem / phenomenon studied: review of relevant theory and	3-4				
53 54			empirical work; problem statement					
55 56 57	Purpose or research	<u>#4</u>	Purpose of the study and specific objectives or questions	4-5				
58 59 60	question	For p	eer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml					

Page 47 of 47

BMJ Open

1 2	Methods			
3 4	Qualitative approach and	<u>#5</u>	Qualitative approach (e.g. ethnography, grounded theory, case study, phenomenolgy, narrative	5
5 6	research paradigm		research) and guiding theory if appropriate; identifying the research paradigm (e.g. postpositivist,	
7 8			constructivist / interpretivist) is also recommended; rationale. The rationale should briefly discuss the	
9 10			justification for choosing that theory, approach, method or technique rather than other options	
11			available; the assumptions and limitations implicit in those choices and how those choices influence	
12 13			study conclusions and transferability. As appropriate the rationale for several items might be	
14 15			discussed together.	
16 17	Researcher characteristics	<u>#6</u>	Researchers' characteristics that may influence the research, including personal attributes,	5
18 19	and reflexivity	<u></u>	qualifications / experience, relationship with participants, assumptions and / or presuppositions;	0
20 21			potential or actual interaction between researchers' characteristics and the research questions,	
22 23			approach, methods, results and / or transferability	
24				
25 26	Context	<u>#7</u>	Setting / site and salient contextual factors; rationale	5-6
27 28	Sampling strategy	<u>#8</u>	How and why research participants, documents, or events were selected; criteria for deciding when	6-7
29 30			no further sampling was necessary (e.g. sampling saturation); rationale	
31 32				0
33 34	Ethical issues pertaining to human subjects	<u>#9</u>	Documentation of approval by an appropriate ethics review board and participant consent, or explanation for lack thereof; other confidentiality and data security issues	8
35 36	numan subjects		explanation for lack thereof, other confidentiality and data security issues	
37	Data collection methods	<u>#10</u>	Types of data collected; details of data collection procedures including (as appropriate) start and	7-8
38 39			stop dates of data collection and analysis, iterative process, triangulation of sources / methods, and	
40 41			modification of procedures in response to evolving study findings; rationale	
42 43	Data collection instruments	<u>#11</u>	Description of instruments (e.g. interview guides, questionnaires) and devices (e.g. audio recorders)	7
44 45	and technologies		used for data collection; if / how the instruments(s) changed over the course of the study	
46 47	Units of study	#12	Number and relevant characteristics of participants, documents, or events included in the study; level	7
48 49	Units of study	$\frac{\pi 1 \Sigma}{2}$	of participation (could be reported in results)	1
50 51				
52 53	Data processing	<u>#13</u>	Methods for processing data prior to and during analysis, including transcription, data entry, data	8
54 55			management and security, verification of data integrity, data coding, and anonymisation /	
56			deidentification of excerpts	
57 58	Data analysis	<u>#14</u>	Process by which inferences, themes, etc. were identified and developed, including the researchers	8
59 60		For p	eer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml	

BMJ Open

1			involved in data analysis; usually references a specific paradigm or approach; rationale	
2 3	Techniques to enhance	<u>#15</u>	Techniques to enhance trustworthiness and credibility of data analysis (e.g. member checking, audit	7-8
4 5 6	trustworthiness		trail, triangulation); rationale	
7 8	Results/findings			
9 10 11 12	Syntheses and interpretation	<u>#16</u>	Main findings (e.g. interpretations, inferences, and themes); might include development of a theory or model, or integration with prior research or theory	9-11
13 14 15 16	Links to empirical data	<u>#17</u>	Evidence (e.g. quotes, field notes, text excerpts, photographs) to substantiate analytic findings	11-18
17 18	Discussion			
19 20 21	Intergration with prior work,	<u>#18</u>	Short summary of main findings; explanation of how findings and conclusions connect to, support,	18-22
22	implications, transferability		elaborate on, or challenge conclusions of earlier scholarship; discussion of scope of application /	
23 24	and contribution(s) to the		generalizability; identification of unique contributions(s) to scholarship in a discipline or field	
25 26	field			
27 28 29	Limitations	<u>#19</u>	Trustworthiness and limitations of findings	22-23
30 31 32	Other			
32 33 34	Conflicts of interest	<u>#20</u>	Potential sources of influence of perceived influence on study conduct and conclusions; how these	24
35 36			were managed	
37 38 39	Funding	<u>#21</u>	Sources of funding and other support; role of funders in data collection, interpretation and reporting	24
40	The SRQR checklist is distribut	ed with	permission of Wolters Kluwer © 2014 by the Association of American Medical Colleges. This checklist was	
41 42 43	completed on 29. July 2020 us	ing <u>http</u>	s://www.goodreports.org/, a tool made by the EQUATOR Network in collaboration with Penelope.ai	
44 45				
46				
47 48				
49				
50 51				
52				
53 54				
54 55				
56				
57 58				
58 59				
60		For p	eer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml	