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BMJ Open

When COVID-19 enters in community setting: An exploratory qualitative study of community perspectives on COVID-19 affecting mental well-being

Journal:	BMJ Open		
Manuscript ID	bmjopen-2020-041641		
Article Type:	Protocol		
Date Submitted by the Author:	16-Jun-2020		
Complete List of Authors:	Shahil Feroz, Anam; Aga Khan University, Community Health Sciences Akberali, Naureen; Aga Khan University, School of Nursing and Midwifery Akber Ali, Noshaba; Aga Khan University Feroz, Rida; Aga Khan University Institute for Educational Development Pakistan Nazim Meghani, Salima; Aga Khan University, Community Health Sciences Saleem, Sarah; Aga Khan University, Community Health Sciences		
Keywords:	MENTAL HEALTH, Public health < INFECTIOUS DISEASES, PUBLIC HEALTH		

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1 Paper Title:

- 2 When COVID-19 enters in community setting: An exploratory qualitative study of community
- 3 perspectives on COVID-19 affecting mental well-being
- 4 Author Names:
- 5 1. Ms. Anam Shahil Feroz^{1*} (ASF)
- 6 2. Ms. Naureen Akber Ali² (NAA)
- 7 3. Ms. Noushaba Akber Ali³ (NBA)
- 8 4. Ms. Rida Feroz⁴ (RF)
- 9 5. Ms. Salima Nazim Meghani⁵ (SNM)
- 6. Dr Sarah Saleem⁶ (SS)
- 11 Full institutional mailing addresses of all authors
- 12 1, 3,5,6 The Aga Khan University Department of Community Health Sciences, Stadium Road, PO
- 13 Box 3500, Karachi 74800, Pakistan
- ²The Aga Khan University School of Nursing and Midwifery, Stadium Road, PO Box 3500,
- 15 Karachi 74800, Pakistan
- ⁴Aga Khan University Institute for Educational Development, Karachi, Pakistan
- 17 Email addresses:
- 18 1. Ms. Anam Shahil Feroz*1 AF- anam.feroz@aku.edu
- 2. Ms. Naureen Akber Ali² NAA <u>naureen.akberali@aku.edu</u>
- 3. Ms. Noshaba Akber Ali³ (NBA) <u>noshaba.akber07@gmail.com</u>
- 4. Ms. Rida Feroz⁴ (RF) <u>ridah.feroz.mphil19@student.aku.edu</u>
- 5. Ms. Salima Nazim Meghani⁵ (SNM) <u>salima.ratnani@gmail.com</u>
- 6. Dr Sarah Saleem⁶ SS sarah saleem@aku.edu
- 24 Corresponding Author*:

- 25 1. Ms. Anam Shahil Feroz*1 AF- anam.feroz@aku.edu
- Postal Address: 1. Aga Khan University, Community Health Sciences Karachi, PK
- 27 Phone Number: 922134864917
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Word count: 1944 words

Abstract

Introduction: The COVID-19 pandemic has certainly resulted in an increased level of anxiety and fear among general population related to its management and infection spread. Due to fear and social stigma linked with COVID-19, many individuals in the community hide their disease and didn't reach health care facilities in timely manner. In addition, rumors, myths and inaccurate information about virus are also spreading rapidly with the wide spread use of social media leading to intensified irritability, fearfulness, insomnia, oppositional behavior and somatic complaints. Considering the relevance of all the above factors, we aim to explore perceptions and attitudes of community members towards COVID-19 and its impact on their daily lives and mental well-being.

Methods and analysis: This formative research will employ an exploratory qualitative research design using semi-structured interviews and a purposive sampling approach. The data collection methods for this formative research will include in-depth interviews (IDIs) with community members. The study will be conducted in Karimabad FB area and Garden (East and West) community settings of Karachi, Pakistan. The areas have been selected purposively to interview members of these communities. Study data will be analyzed thematically using NVivo 12 Plus software.

Ethics and Dissemination: Ethical approval for this study has been obtained from the Aga Khan University Ethical Review Committee (AKU-ERC) [2020-4825-10599]. The study results will be disseminated to scientific community and research subjects participating in this study. The findings of this study will help us explore perceptions and attitudes of different community members towards COVID-19 pandemic, and its impact on daily lives and mental well-being of individuals in the community.

Strengths and limitations of this study

- The mental health impact of the pandemic is likely to last much longer than the physical health impact and therefore this study is positioned well to explore perceptions and attitudes of community members towards COVID-19 pandemic, and its impact on their daily lives and mental well-being.
- This study will guide the development of context-specific innovative mental health programs to support communities in future.
- One limitation is that all study respondents were interviewed online, to minimize the risk of infection. Due to this reason, the authors will not have the opportunity to build rapport with respondents over Zoom or obtain non-verbal cues during interviews

Background

COVID-19 pandemic has affected almost 180 countries, since its first detection in Wuhan, China, in December 2019 (1, 2). The COVID-19 outbreak has been declared as a Public Health Emergency of International Concern by the World Health Organization (WHO) (3). WHO estimates the global mortality of about 3.4%(4), however, the death rates will vary between countries and across age groups.(5). In Pakistan, a total of 10,880 cases and 228 deaths has been reported, to date, due to COVID-19 infection (6).

The worldwide COVID-19 pandemic has not only incurred massive challenges to the global supply chains and healthcare systems but also has detrimental effect on the overall health of individuals (7). The pandemic has led to lockdowns and has created havoc impact on the societies at large. Most company employees' including daily wages workers have been prohibited from accessing their workplaces or being asked to work from home which has caused job related insecurities and financial crisis among the communities (8). Besides, educational institution and training centers have been closed due to which children have lost their routine of going schools, studying and socializing with their peers. Also, the delay in examinations is likewise a huge stressor for students (8). Alongside, parents have been struggling on creating a structure milieu for their children(9). COVID-19 has hindered the normal routine life of every individual be it children, teenager, adult or elderly. The crisis is engendering burden throughout the population particularly in developing countries like Pakistan that face the major challenges due to the fragile health care systems and poor economic structures (10)

The pandemic of COVID-19 has certainly resulted in an increased level of anxiety and fear among general population related to its management and infection spread(8). Further, highly contagious nature of the COVID-19 has also escalated confusion, fear and panic among the general population. Moreover, social distancing is often an unpleasant experience for the community members and for the patients who undergoes it as it adds to mental suffering, particularly in the local setting where get-togethers with friends and families is a major source of entertainment(9). Recent studies also showed that individuals who are following social distancing experience loneliness causing substantial level of distress in the form of anxiety, stress, anger, misperception and post-traumatic stress symptoms (8, 11). Separation from the family members, the loss of autonomy, insecurity over

disease status, inadequate supplies, inadequate information, financial loss, frustration, stigma and boredom, are all major stressors that can create drastic impacts on individual's life. (11). Due to fear and social stigma linked with COVID-19, many individuals in the community hide their disease and didn't reach health care facilities timely (12). In addition rumors, myths and inaccurate information about covid 19 are also spreading rapidly with the wide spread use of social media (13) that is not only confined to adults but is also carried onto the children leading to intensified irritability, fearfulness, insomnia, oppositional behavior and somatic complaints(9). The psychological symptoms associated with COVID-19 at community level is also manifested as anxiety driven panic buying, resulting in exhaustion of resources from the market (14). Some level of panic also dwells in the community because of the unavailability of essential protective equipment particularly masks and sanitizers (15). Similarly, mental health issues including depression, anxiety, panic attacks, psychotic symptoms and even suicide were also reported during the early SARS outbreak (16, 17). Likely, the COVID-19 is also posing a similar risk throughout the world (12).

The fear of transmitting disease or family member falling ill is a probable mental function of the human nature, but at some point psychological fear of the disease generates more anxiety than the disease itself. Therefore, mental health problems are likely to increase in an epidemic situation among community members. Considering the relevance of all the above factors, we aim to explore perceptions and attitudes of community members towards COVID-19 pandemic, and its impact on their daily lives and mental well-being.

Methods and analysis

Study design

This study will employ an exploratory qualitative research design using semi-structured interviews and a purposive sampling approach. The data collection methods for this formative research will include in-depth *interviews* (IDIs) with community members. The aim of the IDIs is to explore perceptions of community members towards COVID-19 and its impact on their mental well-being.

Study setting and study participants

The study will be conducted in two communities of Karachi city. These include, Karimabad

Federal B Area Block 3 Gulberg Town, Garden East and Garden West area of Karachi city. Karimabad is a neighborhood in the Karachi Central district of Karachi, Pakistan. It is situated at south of Gulberg Town bordering Liaquatabad, Gharibabad and Federal B. Area. The population of this neighborhood is predominantly Ismailis. People living here belong mostly to middle class to lower middle class. It is also known for its whole-sale market of sports goods and stationery. Garden is an upmarket neighborhood, which is in the Karachi South district of Karachi, Pakistan. It is subdivided into two neighborhoods: Garden East and Garden West. It is the residential area around the Karachi Zoological Gardens, hence it is popularly known as 'Garden' area. The population of Garden used to be primarily Ismaili and Goan Catholic, but has seen increasing numbers of Memons, Pashtuns, and Baloch. These areas have been selected purposively to interview members of these communities. Adult community members of different ages and both genders will be interviewed from both sites, as mentioned in the below table 1.

Table 1 Study participants for IDIs

In-depth interview Participants		Sample Range
Young adults (18 -35 years)		6-8 (4 male & 4 female)
Middle-aged adults (36-55 years)		6-8 (4 male & 4 female)
Older adults (> 55 years)		6-8 (4 male & 4 female)

In-depth interviews with community members

We will conduct in-depth interviews (IDIs) with community members to explore perceptions and attitudes of community members towards COVID-19 and its effects on their daily lives and mental well-being. The in-depth interview participants will be identified via community WhatsApp group. The in-depth interview participant will be invited for interview via WhatsApp message or email. The consent will be taken over email or WhatsApp before the interview begins, in which they will agree that the interview can be audio-recorded and written notes can be taken. The interviews will be conducted in either Urdu or English language and each interview will last around 40 to 50 minutes in duration. Study participants will be assured that their information will remain confidential and no identifying features will be mentioned on the transcript. The major themes will include a general discussion about participant's knowledge and perceptions about COVID-19 pandemic, perceptions on safety measures, and perceived challenges in current situation and its impact on their mental well-being. We anticipate that 24-30 interviews will be conducted but we will cease interviews once data saturation will be achieved.

150 Interview guide for IDIs are given in Annex 1.

Eligibility criteria

The inclusion and exclusion criteria for study participants are provided below:

Inclusion criteria

• Residents of garden (East and west) and karimabad FB area community of Karachi, who have not contracted the disease.

Exclusion criteria

- Those who refuse to participate in this study
- Participants who have experienced COVID-19 and are undergoing treatment
- Participants who are suspected for COVID-19 and have been isolated/quarantined
 - Family members of covid positive cases

Ethical considerations

- Study participants will be asked to provide informed, written consent prior to participation in this
- study. The informed consent form can be submitted by the participant via WhatsApp or email.
- Participants who are unable to write their names will be asked to provide a thumbprint to symbolize
- their consent to participate. Ethical approval for this study has been obtained from the Aga Khan
- University Ethical Review Committee (AKU-ERC) [2020-4825-10599].

Data Collection Procedure

- Semi-structured interview guide has been developed for community members. The guide will help
- to explore participants' views towards COVID-19 and understand their perceptions on the mental
- wellbeing in light of the current situation. All semi-structured interviews will be conducted online
- via zoom technology or WhatsApp. Interviews will be scheduled on participant convenient day and
- time. Interviews are anticipated to begin in May 10, 2020.

Patient and Public Involvement:

175 No patient involved

Data analysis

We will transcribe and translate collected data into English Language by listening to the audio recordings to perform a thematic analysis. NVivo 12 Plus software will be used to import, organize and explore data for analysis purpose. We will read the transcripts various times to develop familiarity and clarification with the data. We will use iterative process that will help us to label the data and generate new categories to identify the emergent themes. The recorded text will be divided into shortened units and labeled as a 'code' without losing the main essence of the research study. Subsequently, codes will be then analyzed and merged into comparable categories. Lastly, same categories will be grouped under sub-themes and final themes. Two independent investigators will perform the coding, category creation, and thematic analyses, and discrepancies will be resolved to reduce researcher's bias

Discussion

The findings of this study will help us to explore perceptions and attitudes towards COVID-19 pandemic, and its impact on daily lives and mental well-being of individuals in the community. Besides, an in-depth understanding of the needs of the community will be identified, that will help us develop context-specific innovative mental health programs to support communities in future. The study will provide insights on how communities are managing their lives under such difficult situation.

a. Contributorship statement

The qualitative study was conceptualized by NAA & AF. NAA prepared the first draft of the manuscript. AF reviewed the manuscript several times and provided feedback. All authors have contributed to this manuscript, and reviewed and approved the final version of the paper.

b. Competing interests

The authors declare that they have no competing interests.

c. Funding Self-funded

d. Data sharing statement

Materials described in this paper pertain to the study protocol only and there are no raw data reported. The datasets will be collected and analyzed and can be made available from the corresponding author on reasonable request.

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Annex-1 In-Depth Interview Guide for interviewing community members

Basic Information

S.no	Participant	Age	Sex	Occupation	Educational	Locality/site
	Code				level	
	(Confidential)					
			<u>^</u>			

General Perceptions and knowledge about COVID-19

- 1. How do you feel about your knowledge level regarding COVID-19 pandemic?
- 2. How did you learn about the coronavirus outbreak?
- 3. What is the reliable source of information about COVID-19?

Probes: social media, television, newspapers/magazines, websites, friends/family, health care professionals

- 4. What were your initial reactions towards COVID-19, when you first heard about it?
 - a. Probes: curse from God etc.
- 5. What are your thoughts and feelings about COVID-19 cases?

Perceptions on safety measures for preventing COVID-19

1. What safety measures have you taken for yourself and for your family safety in COVID-19?

Probes: hand washing, sanitizer, social distancing, covering your cough, avoiding touching your eyes, nose, and mouth with unwashed hands, wearing a face mask, avoiding close contact with someone who is sick

- 2. Do you think novel coronavirus will inflict serious damage in your community, if adequate safety measures are not taken?
- 3. Do you think you can protect yourself against the novel coronavirus?

Perception about fears, anxiety stress and coping about COVID-19

- 1. How you perceive life during the COVID- pandemic?
 - a. Probes: affected daily routine
- 2. What are your fears and anxieties related to COVID-19?
- 3. What are the mental health consequences of the COVID-19 lockdown and social isolation you and your family?
- 4. How the current pandemic has caused stress in life's of people and it has also dramatically affected you and your family? (financial glitches, disputes, jobs)
- 5. How COVID-19 has influenced your temperament, feelings and emotions?
- 6. What is the effect of repeated media consumption about COVID-19 in traditional and social media on mental health?
- 7. How do you cope with anxiety and fear related to COVID-19 pandemic?
- 8. Do you feel the need of having mental health programs or other measures to overcome anxiety, fear and stress in this pandemic situation?
- 9. Do you have any suggestions on how government could provide support services for coping with stress related to this crisis situations? (Coping strategies)
- 10. Currently, what sort of help or support is accessible to you and your family to cope with the pandemic situation?
- 11. What are the best methods for promoting successful adherence to behavioural advice about COVID-19 while enabling mental wellbeing and minimizing distress?

Future Preparedness

1. In your opinion, what are the needs for future preparedness for any outbreak that prepare community (trainings, awareness, equipment, protective gears)

BMJ Open

The impact of COVID-19 pandemic on mental health and well-being of communities: An exploratory qualitative study protocol

Journal:	BMJ Open		
Manuscript ID	bmjopen-2020-041641.R1		
Article Type:	Protocol		
Date Submitted by the Author:	02-Nov-2020		
Complete List of Authors:	Shahil Feroz, Anam; Aga Khan University, Community Health Sciences Akberali, Naureen; Aga Khan University, School of Nursing and Midwifery Akber Ali, Noshaba; Aga Khan University Feroz, Ridah; Aga Khan University Institute for Educational Development Pakistan Nazim Meghani, Salima; Aga Khan University, Community Health Sciences Saleem, Sarah; Aga Khan University, Community Health Sciences		
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- 4 Author Names:
- 5 1. Ms. Anam Shahil Feroz^{1*} (ASF)
- 6 2. Ms. Naureen Akber Ali² (NAA)
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- 11 Full institutional mailing addresses of all authors
- 12 1, 3,5,6 The Aga Khan University Department of Community Health Sciences, Stadium Road, PO
- 13 Box 3500, Karachi 74800, Pakistan
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- 2. Ms. Naureen Akber Ali² NAA <u>naureen.akberali@aku.edu</u>
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The worldwide COVID-19 pandemic has not only incurred massive challenges to the global supply chains and healthcare systems but also has a detrimental effect on the overall health of individuals (7). The pandemic has led to lockdowns and has created a havoc impact on the societies at large. Most company employees' including daily wage workers have been prohibited from accessing their workplaces or being asked to work from home which has caused job-related insecurities and financial crises among the communities (8). Besides, educational institutions and training centers have been closed due to which children have lost their routine of going to schools, studying, and socializing with their peers. Also, the delay in examinations is likewise a huge stressor for students (8). Alongside this, parents have been struggling on creating a structured milieu for their children(9). COVID-19 has hindered the normal routine life of every individual be it children, teenagers, adults, or the elderly. The crisis is engendering burden throughout the population and communities particularly in developing countries like Pakistan that face major challenges due to the fragile health care systems and poor economic structures (10)

The pandemic of COVID-19 has certainly resulted in an increased level of anxiety and fear among communities related to its management and infection spread(8). Further, the highly contagious nature of the COVID-19 has also escalated confusion, fear, and panic among community residents. Moreover, social distancing is often an unpleasant experience for the community members and for the patients who undergo it as it adds to mental suffering, particularly in the local setting where gettogethers with friends and families are a major source of entertainment(9). Recent studies also showed that individuals who are following social distancing experience loneliness causing a substantial level of distress in the form of anxiety, stress, anger, misperception, and post-traumatic stress symptoms (8, 11). Separation from the family members, the loss of autonomy, insecurity over

disease status, inadequate supplies, inadequate information, financial loss, frustration, stigma, and boredom, are all major stressors that can create drastic impacts on an individual's life. (11). Due to fear and social stigma linked with COVID-19, many individuals in the community hide their disease and didn't reach health care facilities timely (12). Besides rumors, myths and inaccurate information about COVID-19 are also spreading rapidly with the widespread use of social media (13) that is not only confined to adults but is also carried onto the children leading to intensified irritability, fearfulness, insomnia, oppositional behavior and somatic complaints(9). The psychological symptoms associated with COVID-19 at the community level is also manifested as anxiety-driven panic buying, resulting in exhaustion of resources from the market (14). Some level of panic also dwells in the community because of the unavailability of essential protective equipment particularly masks and sanitizers (15). Similarly, mental health issues including depression, anxiety, panic attacks, psychotic symptoms, and even suicide were also reported during the early SARS outbreak (16, 17). Likely, COVID-19 is also posing a similar risk throughout the world (12).

The fear of transmitting disease or a family member falling ill is a probable mental function of human nature, but at some point, psychological fear of the disease generates more anxiety than the disease itself. Therefore, mental health problems are likely to increase in an epidemic situation among community residents. Considering the relevance of all the above factors, we aim to explore perception and attitudes of the COVID-19 among the community residents' the, and the impact of those perceptions & attitude on daily lives and mental well-being of community residents.

Methods and analysis

Study design

- This study will employ an exploratory qualitative research design using semi-structured interviews and a purposive sampling approach. The data collection methods for this formative research will include in-depth *interviews* (IDIs) with community members. The IDIs aim to explore perceptions of community members towards COVID-19 and its impact on their mental well-being.
- Study setting and study participants
- The study will be conducted in two communities of Karachi city. These include Karimabad Federal
 - B Area Block 3 Gulberg Town, Garden East, and Garden West area of Karachi city. Karimabad is a

neighborhood in the Karachi Central district of Karachi, Pakistan. It is situated in thesouth of Gulberg Town bordering Liaquatabad, Gharibabad, and Federal B. Area. The population of this neighborhood is predominantly Ismailis. People living here belong mostly to the middle class to the lower middle class. It is also known for its wholesale market of sports goods and stationery. Garden is an upmarket neighborhood, which is in the Karachi South district of Karachi, Pakistan. It is subdivided into two neighborhoods: Garden East and Garden West. It is the residential area around the Karachi Zoological Gardens, hence it is popularly known as the 'Garden' area. The population of Garden used to be primarily Ismaili and Goan Catholic but has seen increasing numbers of Memons, Pashtuns, and Baloch. These areas have been selected purposively because the few members of these communities are already known by one of the co-investigators. The co-investigator will serve as a gatekeeper for providing entrance to the community for the purpose of this study. Adult community members of different ages and both genders will be interviewed from both sites, as mentioned in the below table 1. Interview participants will be selected based on the eligibility criteria.

Table 1 Study participants for IDIs

In-depth interview Participants	Sample Range
Young adults (18 -35 years)	6-8 (4 male & 4 female)
Middle-aged adults (36-55 years)	6-8 (4 male & 4 female)
Older adults (> 55 years)	6-8 (4 male & 4 female)

In-depth interviews with community members

We will conduct in-depth interviews (IDIs) with community members to explore the perceptions and attitudes of community members towards COVID-19 and its effects on their daily lives and mental well-being. The in-depth interview participants will be identified via the community WhatsApp group. The in-depth interview participant will be invited for an interview via a WhatsApp message or email. The consent will be taken over email or WhatsApp before the interview begins, in which they will agree that the interview can be audio-recorded and written notes can be taken. The interviews will be conducted in either Urdu or English language and each interview will last around 40 to 50 minutes in duration. Study participants will be assured that their information will remain confidential and no identifying features will be mentioned on the transcript. The major themes will include a general discussion about participant's knowledge and perceptions about the

COVID-19 pandemic, perceptions on safety measures, and perceived challenges in the current situation and its impact on their mental well-being. We anticipate that 24-30 interviews will be conducted but we will cease interviews once data saturation will be achieved. Data saturation is the point when no new themes emerged from the additional interviews. Data collection will occur concurrently with data analysis to determine the data saturation point. The audio recordings will be transcribed by a transcriptionist within 24 hrs. of the interviews.

An interview guide for IDIs are given in Annex 1.

Eligibility criteria

The inclusion and exclusion criteria for study participants are provided below:

Inclusion criteria

• Residents of garden (East and west) and karimabad FB area community of Karachi, who have not contracted the disease.

Exclusion criteria

- Those who refuse to participate in this study
- Participants who have experienced COVID-19 and are undergoing treatment
- Participants who are suspected for COVID-19 and have been isolated/quarantined
- Family members of COVID-19 positive cases

Data Collection Procedure

- A semi-structured interview guide has been developed for community members. The initial questions in the guide will help to explore participants' perceptions and attitudes towards COVID-
- 172 19. The additional questions in the guide will assess the impact of those perceptions & attitude on
- daily lives and mental health and well-being of community residents. All semi-structured
- interviews will be conducted online via zoom technology or WhatsApp. Interviews will be scheduled
- on a participant's convenient day and time. Interviews are anticipated to begin on Dec 1, 2020.

Patient and Public Involvement:

No patient involved

Data analysis

We will transcribe and translate collected data into the English Language by listening to the audio recordings to perform a thematic analysis. NVivo 12 Plus software will be used to import, organize, and explore data for analysis purposes. Two independent researchers will read the transcripts various times to develop familiarity and clarification with the data. We will use an iterative process that will help us to label the data and generate new categories to identify the emergent themes. The recorded text will be divided into shortened units and labeled as a 'code' without losing the main essence of the research study. Subsequently, codes will be then analyzed and merged into comparable categories. Lastly, the same categories will be grouped under sub-themes and final themes. To ensure inter-rater reliability, two independent investigators will perform the coding, category creation, and thematic analyses. The discrepancies between the two investigators will be resolved through consensus meetings to reduce researcher's bias.

Ethics and Dissemination

Study participants will be asked to provide informed, written consent prior to participation in this study. The informed consent form can be submitted by the participant via WhatsApp or email. Participants who are unable to write their names will be asked to provide a thumbprint to symbolize their consent to participate. Ethical approval for this study has been obtained from the Aga Khan University Ethical Review Committee (AKU-ERC) [2020-4825-10599]. The study results will be disseminated to the scientific community and research subjects participating in this study. The findings of this study will help us explore the perceptions and attitudes of different community members towards the COVID-19 pandemic, and its impact on the daily lives and mental well-being of individuals in the community.

Discussion

The findings of this study will help us to explore perceptions and attitudes towards the COVID-19 pandemic, and its impact on the daily lives and mental well-being of individuals in the community. Besides, an in-depth understanding of the needs of the community will be identified, which will help us develop context-specific innovative mental health programs to support communities in the future.

The study will provide insights into how communities are managing their lives under such a difficult situation.



a. Contributorship statement

AF and NAA conceived the study; AF, NAA, RF, NBA, SNM, SS contributed to the development of the study design and final protocols for sample selection, and interviews. AF and NAA contributed to writing the manuscript. All authors reviewed and approved the final version of the paper.

b. Competing interests

The authors declare that they have no competing interests.

c. Funding

Self-funded

d. Data sharing statement

Materials described in this paper pertain to the study protocol only and there are no raw data reported.

The datasets will be collected and analyzed and can be made available from the corresponding author on

reasonable request.



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Annex-1 In-Depth Interview Guide for interviewing community members

Basic Information

S.no	Participant Code (Confidential)	Age	Sex	Occupation	Educational level	Locality/site
	,					
			30			

General Perceptions and attitudes towards COVID-19

- 1. How do you feel about your knowledge level regarding COVID-19 pandemic?
- 2. How did you learn about the coronavirus outbreak?
- 3. What is the reliable source of information about COVID-19?

Probes: social media, television, newspapers/magazines, websites, friends/family, health care professionals

- 4. What were your initial reactions towards COVID-19, when you first heard about it?
 - a. Probes: curse from God etc.
- 5. What are your thoughts and feelings about COVID-19 cases?

Perceptions on safety measures for preventing COVID-19

1. What safety measures have you taken for yourself and for your family safety in COVID-19?

Probes: hand washing, sanitizer, social distancing, covering your cough, avoiding touching your eyes, nose, and mouth with unwashed hands, wearing a face mask, avoiding close contact with someone who is sick

- 2. Do you think novel coronavirus will inflict serious damage in your community, if adequate safety measures are not taken?
- 3. Do you think you can protect yourself against the novel coronavirus?

Perception about fears, anxiety stress and coping about COVID-19

- 1. How you perceive life during the COVID- pandemic?
 - a. Probes: affected daily routine
- 2. What are your fears and anxieties related to COVID-19?
- 3. What are the mental health consequences of the COVID-19 lockdown and social isolation you and your family?
- 4. How the current pandemic has caused stress in life's of people and it has also dramatically affected you and your family? (financial glitches, disputes, jobs)
- 5. How COVID-19 has influenced your temperament, feelings and emotions?
- 6. What is the effect of repeated media consumption about COVID-19 in traditional and social media on mental health?
- 7. How do you cope with anxiety and fear related to COVID-19 pandemic?
- 8. Do you feel the need of having mental health programs or other measures to overcome anxiety, fear and stress in this pandemic situation?
- 9. Do you have any suggestions on how government could provide support services for coping with stress related to this crisis situations? (Coping strategies)
- 10. Currently, what sort of help or support is accessible to you and your family to cope with the pandemic situation?
- 11. What are the best methods for promoting successful adherence to behavioural advice about COVID-19 while enabling mental wellbeing and minimizing distress?

Future Preparedness

1. In your opinion, what are the needs for future preparedness for any outbreak that prepare community (trainings, awareness, equipment, protective gears)