Peritraumatic distress and perceived mental healthcare needs among residents of a community housing during COVID-19

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Abstract

Introduction: The consequences of lockdown, quarantine, and uncertainties of COVID-19 pandemic has not only caused physical sufferings but affected the mental health of the people around the globe. Peritraumatic distress is a strong predictor of posttraumatic stress disorder that may further lead to depression and suicidal risk. Thus, the aim of this study was to assess peritraumatic distress and perceived mental healthcare needs among the residents of a gated community in Kathmandu Valley.

Method: This was a quantitative online cross-sectional study conducted during June 2020 among adult residents of a gated community in Kathmandu Valley, Nepal. COVID-19 peritraumatic distress index and perceived mental healthcare questionnaire were used to find out peritraumatic distress and mental healthcare needs of the residents. Ethical approval was obtained. Statistical analysis of data was done using SPSS.

Results: A total of 45 residents returned the completed forms. Male were 62.2%, 53.3% belonged to 36 to 55 years and 46.7% had at least one comorbidity. Mild to moderate peritraumatic distress was found among 17.82%. Fisher’s exact test showed no association between age, gender, presence of comorbidity and peritraumatic distress (p > 0.05). Perceived mental healthcare needs were felt by more than 91% of the participants.

Conclusion: One sixth of the participants had mild to moderate level of peritraumatic distress. Almost all the participants felt they have mental healthcare needs. Study highlights the need for counseling for distress and mental health during COVID-19 pandemic.

Keywords: COVID-19, gated community, mental health, pandemic, peritraumatic distress
Introduction

In December 2019, cases of pneumonia of unknown cause reported from Wuhan, China, were later found to be caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) and named as coronavirus disease 2019 (COVID-19) by the World Health Organization. Nepal reported first case on January 23, 2020. To prevent the spread of coronavirus Nepal imposed travel ban from Europe, West Africa, West Asia, Gulf and Japan on March 20, 2020 and after the second case (March 24, 2020) entire country was put on lockdown. Outbreaks such as COVID-19 pandemic has negative psychological impact which increases demand for mental healthcare needs. Factors like lockdown, social isolation, disruptions in life routines may cause peritraumatic distress (PD). It is defined as emotional and psychological distress during or immediately after any traumatic event and may develop into post-traumatic stress disorder (PTSD). Study from China reveals that 35% (N=52,730) experienced PD related to COVID-19. Study from Nepal shows 35.5% (N=142) of participants experienced anxiety and 7% depression due to COVID-19. Present study aims to assess the PD and perceived mental healthcare needs among the residents of a gated community in Kathmandu Valley, to help plan preventable measures for PTSD.

Method

The study was conducted during the COVID-19 crisis in June 2020 among residents of a gated community of 115 households in Kathmandu Valley, having a single entrance with CCTV and round the clock security guards on duty. This gated community is governed by the Executive Committee, which formed a COVID-19 Response Team (COVIResT) consisting of residents, committee members and health personnel due to needs arising from the pandemic in our midst. The COVIResT together with the Executive Committee laid down the guidelines for residents and staffs. The guidelines also mentioned about outsiders to enter (with valid reason) and exit the colony. These guidelines included washing hands at the entrance gate, wearing of mask at all time and maintaining social distancing rules.

Only adults aged 18 and above who were willing to participate were included in the study. Data was collected after necessary permission from the Executive Committee of the Society Welfare Association. Online survey using Google form in English and Nepali language was used. Ethical approval for the study was obtained from Institutional Review Committee, Patan Academy of Health Sciences (IRC-PAHS, Ref: nrs2006051378, dated: 2020-06-05).

The instrument used for data collection consisted of three sections (i) Personal information including age, gender and existing co-morbidities, (ii) COVID-19 peritraumatic distress index (CPDI), a validated tool (Cronbach’s alpha 0.95) consisting of 24 items that includes anxiety, depression, specific phobias, cognitive changes, avoidance and compulsive behavior, physical symptoms and loss of social functioning. The total score for CPDI is 96 (normal: 0-24; mild to moderate PD: 25-48; severe PD: 49-96). The tool was validated for local use in this study, and Cronbach’s alpha was 0.89, which is indicative of a good reliability of the tool (iii) Perceived mental healthcare needs were assessed using a questionnaire with Yes/No responses for which content validity was done. The English tool was translated in Nepali language and back translation was done in English by individuals living this society who are fluent in both the languages.

A list of all the residents’ email information was obtained from the Society’s administration office. A flyer with study information and invitation was circulated in the Viber social media group of the society. Later a Google form link was sent to all the residents via email. The Google form was set to receive one form per participant to avoid duplication of data. The residents were
requested to complete the Google form within three days, after which a general reminder was sent via personal email and also in Viber group. The last reminder was sent after three days of the first reminder.

Each participant was provided with an additional information sheet in the Google form about the importance of the study, the intent to publish the findings in a scientific journal, safeguarding anonymity of all participants by requesting them not to mention their names or house numbers on the Google Form. Those who agreed to the above information were asked to tick in the appropriate box indicating their consent prior to filling up the survey form.

Data thus collected was analyzed using statistical software SPSS. Descriptive statistics i.e., frequency, mean and standard deviation were used to find out the peritraumatic distress and the perceived mental health care needs. Fisher exact test was used to analyze the association between age, gender, comorbidities and peritraumatic distress.

**Result**

A total of 120 residents were sent the google link to participate in the study, out of which 45 residents completed the survey form and were eligible for analysis. Thus, the response rate for this study was 37.5%. The residents’ personal information included age, gender, and comorbidities for which they were on medication, Table 1.

| Characteristic       | Frequency | Percent |
|----------------------|-----------|---------|
| Age (in years)       |           |         |
| >55                  | 18        | 40.0    |
| 18-35                | 3         | 6.7     |
| 36-55                | 24        | 53.3    |
| Gender               |           |         |
| Male                 | 28        | 62.2    |
| Female               | 17        | 37.7    |
| Comorbidities        |           |         |
| Diabetes             | 3         | 6.7     |
| High Blood pressure  | 16        | 35.6    |
| Asthma               | 1         | 2.2     |
| Heart disease        | 1         | 2.2     |
| None                 | 24        | 53.3    |

**Figure 1. Level of peritraumatic distress among residents of a community housing during COVID-19 (N = 45)**
Table 2. Mean and standard deviation of COVID-19 peritraumatic distress index (CPDI) items indicating peritraumatic distress among residents of a community housing (N = 45)

| Item No. | Statement                                                                 | Frequency | Percent | Mean | SD  |
|----------|---------------------------------------------------------------------------|-----------|---------|------|-----|
| 1.       | Compared to normal times, I felt more nervous and anxious.                | 31        | 68.9    | 0.80 | 0.66|
| 2.       | I felt insecure and bought lot of masks, medications, sanitizers, gloves and other home supplies | 31        | 68.9    | 0.93 | 0.78|
| 3.       | I sympathized and felt sad for COVID-19 patients and their families.      | 45        | 100.0   | 1.82 | 0.81|
| 4.       | I felt helpless and angry about the people around me, government and media. | 35        | 77.8    | 1.09 | 0.76|
| 5.       | I couldn’t stop myself from collecting information about COVID-19 most times in a day even if it was not necessary. | 26        | 57.8    | 0.91 | 0.97|
| 6.       | I was constantly sharing news about COVID-19 to family and friends through social media/phone | 32        | 71.1    | 1.07 | 0.96|
| 7.       | I felt tired and sometimes even exhausted.                                | 15        | 44.5    | 0.73 | 1.01|

Table 3. Association between age, gender, comorbidity and perceived peritraumatic distress among residents of a community housing (N = 45)

| Variable  | PD   | Fisher’s Exact* | p value |
|-----------|------|-----------------|---------|
|           | Absent | Present          |         |
| Age       | 18-55 | 22              | 5       | 0.00 | 0.60 |
|           | >55   | 15              | 3       |       |      |
| Gender    | Male  | 22              | 5       | 0.00 | 0.60 |
|           | Female | 15             | 3       |       |      |
| Comorbidity | Yes | 18              | 3       | 0.05 | 0.43 |
|           | No   | 19              | 5       |       |      |

*p value > .05

Table 4. Perceived mental healthcare needs among participants of a community housing survey during COVID-19 (N = 45)

| S. No. | Question                                                                 | Response |
|--------|--------------------------------------------------------------------------|----------|
|        |                                                                          | Yes (%)  | No (%)  |
| 1.     | Do you think it would be helpful to talk to someone about your worries for the COVID-19 infection? | 29 (64.44) | 16 (35.56) |
| 2.     | Do you think it is necessary to get mental health help if someone panics due to COVID-19? | 44 (97.78) | 1 (2.22) |
| 3.     | Do you think it would be beneficial if mental health professionals help people in dealing with the current COVID-19 situation? | 43 (95.56) | 2 (4.44) |
| 4.     | Will you suggest people for seeking counselling who are highly anxious due to the COVID-19? | 41 (91.11) | 4 (8.89) |
| 5.     | Do you think it would be helpful to have online virtual counselling during the current pandemic? | 41 (91.11) | 4 (8.89) |

The mean (SD) COVID-19 Peritraumatic Distress Index (CDPI) score of the sample was 14.67 (SD± 9.09). Majority of the residents had normal CDPI scores that ranged between 0-24, Figure 1. Although, none of the residents reported severe level of peritraumatic distress, the higher mean scores were shown for certain items on the CDPI scale, Table 2. Fisher’s exact test showed no significant association (p>0.05) between age, gender, and comorbidities and peritraumatic distress among residents, Table 3.

More than 90% of the participants perceived that it would be helpful to get mental health help and counseling, Table 4. Only 64.44% of
participants thought that it will be helpful to talk to someone about their worries related to COVID-19 infection.

Discussion

Of the 45 participants in our study, 17.82% had mild to moderate level of peritraumatic distress unlike in the studies done in China\(^8\) and Brazil\(^9\) where mild to moderate level of peritraumatic distress was found among 29.29% (N=52730), 52.9% (N=654) respectively. Similar studies in China\(^7\) and Brazil\(^8\) revealed that 5.14% and 35.9% of the total participants had severe level of peritraumatic distress which may pose as an alarming situation. None of the participants in our study had severe peritraumatic distress. The mean (SD) of CDPI score of the sample in this study was 14.67 (SD = 9.09) in comparison to the findings in Iran\(^9\) (M = 34.54, SD = 14.92), Brazil\(^8\) (M = 45.70, SD = 14.88) and China\(^7\) (M = 23.65, SD = 15.45).

This study was conducted during a period when the confirmed cases and deaths due to COVID-19 in Nepal were much lower (cases = 3,235, deaths = 13) than other countries, for example, China (cases = 84, 629, deaths = 4,645), Brazil (cases = 645, 771, deaths = 35, 026), and Iran (cases = 169,425, deaths = 8,209).\(^10\) Therefore, it is not surprising that the general population residing in these countries reported higher level of peritraumatic distress compared to the sample in this study. Living in urban areas and having a stable family income may act as the protective factors against distress.\(^11\)

The other possible reason for the low PD in this gated community could be the facilities which include adequate space to walk and exercise, a park and a badminton court which provided opportunities for controlled socializing with others within the required rules of social distancing needs. These reasons need to be explored in future studies to ascertain the factors influencing PD.

A pandemic situation may cause strong emotional reactions among people such as fear and anxiety.\(^12\) We found that 68.89% of the participants in our study felt anxiety and nervousness as compared to prior to the outbreak of COVID-19. Prolonged anxiety and fear, if not timely managed, may lead to posttraumatic stress disorder (PTSD).\(^13\) Feeling helpless and angry about the government and media may further lead to feeling distressed. A total of 77.78% participants felt angry about the people around them, government, and media. Thousands of people in Nepal protested against government and demanded better response to COVID-19 pandemic in terms of quarantine conditions, polymerase chain reaction (PCR) tests and better management of the funds to fight the pandemic.\(^14\) Likewise, in South Korea, the public demonstrated anger due to the mismanagement of masks and sanitizers in time of scarcity in the country.\(^15\) Similarly, 33.3% of the 662 participants reported anger toward posting on social media.\(^4\)

Another sign of distress among people can be panic buying. A study done in India during COVID-19 supports this notion, in which 33% to 75% of the participants reported buying more than needed sanitizer and gloves respectively due to the fear of scarcity due to the pandemic. In our study, 68.89% participants reported buying lot of masks, medications, sanitizers, gloves, and home supplies. This could be again due to the incorrect news on social media regarding shortages. On February 15\(^{th}\), 2020, the Director General of World Health Organization (WHO) stated that, “we’re not just fighting an endemic, we’re fighting an infodemic”.\(^16\) Social media that could be important for conveying right information to the general public may sometimes mislead and misinform people by providing incorrect details about the pandemic, which in turn increases the risk of distress.\(^4,17,18\) During a pandemic, it is quite natural for the people to constantly look out for new and updated information. In this study, 57.78% participants reported that they could not stop themselves from collecting information about COVID-19, multiple times in a day even if it was not necessary. Furthermore, sharing of
information with friends and family was found among 35.66% in our study, whereas, a much higher number of participants (80%) in a study from India reported sharing COVID-19 related information with their friends.4

A review of current literature on COVID-19 pandemic reveals that age19-21, gender7,21 and medical comorbidities19,22 are the predictors of distress. However, we did not find any significant association between age, gender, comorbid conditions (p>0.05) and peritraumatic distress in this study probably because of a smaller sample size. Our finding concurs with a study finding from Poland that reported no association between gender and peritraumatic distress.23

The COVID-19 pandemic situation has increased the demand for mental health care across the world24 including Nepal, where a total number of reported suicide cases during the two and half month lockdown period i.e., March 24th to June 6th, 2020 were 1,227, as compared to 5,785 cases for the whole of 2019, indicating a rise of 20% from the last year’s data.25 Although in our study only 17.78% had mild to moderate level of peritraumatic distress, more than 90% of the participants felt the need for mental health care. Ninety-one percent of them agreed that the counseling would be helpful for those who are highly anxious.

This study has some limitations. First, the study was done among residents of only one housing facility due to the lockdown that restricted us to include other similar housing facilities. Second, data was collected online using Google form, and response rate was low. Here the option of using printed forms available in the housing office was provided but was not availed by any of the residents, possibly due to fear of transmission. These limitations may restrict the generalizability of the study findings.

Despite the limitations, this study has the implications for finding out the incidence of peritraumatic distress among the educated and financially better-off people living in gated community housing. This study will also provide the COVIResT an opportunity to prepare guidelines and recommendations for the residents of this gated community to be implemented through the Executive Committee. Residents could also be led to the online counseling and consultation phone helplines initiated by government and non-government.25,26

Conclusion

Almost one sixth of the participants had mild to moderate level of peritraumatic distress (PD). The items on COVID 19 peritraumatic distress index (CPDI) that contributed to the distress were social media, anger on media and government, panic buying of the supplies. There was no statistical significance observed between age, gender, commodities and peritraumatic distress. This study highlights the need for mental health care as almost all the participants (91%) perceived the need.

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Conflict of Interest

None

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None

Author Contribution

All authors contributed substantially to concept, and design. PS wrote the draft. All authors read and approved final version of the manuscript.

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Supplements

Questionnaire used in the study:

Peritraumatic distress and perceived mental healthcare needs among residents of a housing during COVID-19 pandemic

I. Proforma

1. Age (in completed years):
   a. 18-35
   b. 36-55
   c. >55

2. Gender:
   a. Male
   b. Female
   c. Other

3. Do you have any of the following diseases? (choose all that applies to you)
   a. Diabetes
   b. High Blood Pressure
   c. Asthma
   d. Cancer
   e. Heart disease
   f. None

II. Peritraumatic Distress Inventory

Direction: Please select the frequency of the below activities over the past week.
(Never = not even once; Sometimes = once or twice; Often = three or four times; Most of the time = almost every day)

| S. No. | Statement                                                                 | Never | Sometimes | Often | Most of the times |
|--------|---------------------------------------------------------------------------|-------|-----------|-------|-------------------|
| 1      | Compared to normal times, I felt more nervous and anxious.                |       |           |       |                   |
| 2      | I felt insecure and bought a lot of masks, medications, sanitizers, gloves and other home supplies. |       |           |       |                   |
| 3      | I couldn’t stop myself from imagining my family or I am being infected and feel terrified and anxiety about it. |       |           |       |                   |
| 4      | I felt helpless no matter what I did.                                    |       |           |       |                   |
| 5      | I sympathized and felt sad for COVID 19 patients and their families.      |       |           |       |                   |
| 6      | I felt helpless and angry about the people around                         |       |           |       |                   |
me, government and media.

7. I was losing faith in the people around me to make good decisions.

8. I couldn’t stop myself from collecting information about COVID-19 most times in a day even if it’s not necessary.

9. I usually believed the COVID-19 information from all sources without any evaluation.

10. I would rather believe the negative news about COVID-19 and be skeptical about the good news.

11. I was constantly sharing news about COVID-19 to family and friends through social media/phone.

12. I avoided watching COVID-19 news, since I am too scared of the disease and its outcome.

13. I was more irritable and had frequent conflicts with my family than before COVID-19 pandemic.

14. I felt tired and sometimes even exhausted.

15. Due to feelings of anxiety, my reactions in general were becoming sluggish.

16. In recent days, I found hard to concentrate.

17. In recent days, I found it hard to make decisions.

18. During this COVID-19 period, I often felt dizzy, or had back pain and chest distress.

19. During this COVID-19 period, I often felt stomach pain, bloating, and other stomach discomfort.

20. During these days, I felt uncomfortable communicating with others.

21. I rarely talked to my family during these recent days.

22. I couldn’t sleep well; I always dreamed about myself or my family being infected by COVID-19.

23. In recent days, I had lost my appetite.

24. In recent days, I had constipation or frequent urination.

### III. Perceived Mental Healthcare Needs

| S. No. | Questions                                                                 | Yes | No |
|--------|---------------------------------------------------------------------------|-----|----|
| 1.     | Do you think it would be helpful to talk to someone about your worries for the COVID-19 infection? |     |    |
| 2.     | Do you think it is necessary to get mental health help if someone panics due to COVID-19? |     |    |
| 3.     | Do you think it would be beneficial if mental health professionals help people in dealing with the current COVID-19 situation? |     |    |
| 4.     | Will you suggest people for seeking counselling who are highly anxious due to the COVID-19? |     |    |
| 5.     | Do you think it would be helpful to have online virtual counseling during the current pandemic? |     |    |