

PSYCHOLOGICAL DISTRESS, COPING MECHANISM AND PERCEIVED
MENTAL HEALTH CARE NEEDS DUE TO COVID-19 AMONG RESIDENTS
OF SELECTED COMMUNITIES OF KATHMANDU VALLEY

A Dissertation Submitted to
Tribhuvan University
Central Department of Sociology
University Campus
Kirtipur, Kathmandu

In Partial Fulfillment of the Requirement of the Course of the
Degree of Master of Arts in Sociology

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March 2021

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LETTER OF RECOMMENDATION

This dissertation entitled **Psychological distress, coping mechanism and perceived mental healthcare needs due to COVID-19 among residents of selected communities of Kathmandu valley** has been prepared by Ms Mallika Bhandari under my supervision and guidance.

Therefore, I recommend this dissertation to the Evaluation Committee for the final evaluation and approval.

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LETTER OF ACCEPTANCE

This dissertation work entitled '**Psychological distress, coping mechanism and perceived mental healthcare needs due to COVID-19 among residents**' by Mallika Bhandari has been accepted as partial fulfillment of the requirement for the degree of Masters of Arts in Sociology.

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ACKNOWLEDGEMENT

I am very grateful to Prof. Madhusudan Subedi, Dissertation Supervisor, for his valuable time, suggestion and feedback during the research and thesis writing. My sincere thanks also goes to Dr. Youba Raj Luintel, Head of Department, Department of Sociology, University Campus, Kirtipur. I am very grateful to my dear brother Assoc. Prof. Shital Bhandary, my niece Ms. Satvika Bhandary, my mother Ms. Urmila Bhandari and my husband Mr. Sanjeeb Ghimire, who continuously encouraged me to conduct this study on this topic. Their encouragement, feedbacks, suggestions and inputs have been very useful towards completion of this dissertation.

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Mallika Bhandari

Date: 2021/03/12

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ACRONYMS

COPE	Coping Orientations to Problems Experienced.
COVID-19	Corona Virus Disease 2019
CPDI	COVID-19 Peritraumatic Distress Index
PHMCN	Perceived Mental Health Care Needs
PTSD	Post Traumatic Stress Disorder
SARS	Severe Acute Respiratory Syndrome
SD	Standard Deviation
UCSF	University of California, San Francisco
UNICEF	United Nations Children Fund
USA	United State of America
UK	United Kingdom
WHO	World Health Organization

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Coronavirus Disease 2019 (COVID-19) has affected all the people around the globe now. It was initially reported to the World Health Organization (WHO) from China as they saw cluster of cases of pneumonia of unknown etiology in Wuhan city as early as 8 December 2019 (She et al., 2020). It was later declared as pandemic on 21 March 2020 by the WHO as the Sars-Cov2-virus causing COVID-19 spread to Thailand, Hong Kong, Singapore, Korea, Iran, Italy, USA and Brazil by that time.

The COVID-19 pandemic has considerably distorted the social and cultural life of people on a global scale. Particularly those members of social groups in the most vulnerable situations, including people living in poverty, older persons, persons with disabilities, youth, women, and indigenous people. Early evidence indicated that the health and economic impacts of the virus were borne inexplicably by poor people like homeless people, people without access to running water, refugees, migrants, jobless, and displaced persons. Most of the leadership of developed and developing countries have failed to control the impacts of pandemic. Most of the countries, including Nepal, have decreased their budgets in socio-economic development like education, transportation, agriculture, industrial, and other sectors of human development and increased their budget only in health to control the COVID-19 impacts. The COVID-19 pandemic has caused the largest disruption of education in history. The COVID-19 pandemic has drastically changed human life on a global scale. Nearly overnight, in countries worldwide, routines reduced to all, but a handful of activities, and daily mobility patterns became concentrated around our homes, social distancing measures and lockdowns (Gyanwali, 2020).

The COVID-19 not only caused serious threats to people's health and lives but it also triggered a wide variety of psychological distress such as panic disorder, anxiety and depression. The COVID-19 Peritraumatic Distress Index (CPDI) was self-administered online and 52730 valid responses were collected between 31 December 2019 and 10 February 2020 in China, Hong Kong, Macau and Taiwan, which revealed nearly 35% experiencing the psychological distress; 29.29% with

mild/moderate and 5.14% with severe distress. This study found significant association between CPDI score with age, sex, education, occupation and region of residence. Thus, CPDI developed and validated in China is a valid and reliable tool to measure peritraumatic distress during the epidemic as it inquires about the frequency of anxiety, depression, specific phobias, cognitive change, avoidance and compulsive behavior, physical symptoms and loss of social functioning. The Italian government declared first a state of health emergency on 31 January 2020 and then on 11 March 2020 the complete lockdown of the country. A web-based CIPD survey of 18,147 people in Italy aimed at assessing the mental health status of the general population in the lockdown period showed the presence of peritraumatic distress (Fiorillo et al., 2020).

The COVID-19 pandemic has subjected people around the world to severe stress, evoking a variety of coping responses. Coping refers to a range of behavioral and cognitive mechanisms (strategies) intended to deal with stress. A study in Germany showed that people used a full range of coping strategies in response to the COVID-19 pandemic (Zacher & Rudolph, 2020). On the other hand, both problem-focused and avoidant coping predicted less anxiety, sleep problems, and cognitive alterations in response to home confinement in children and adolescents from Italy, Spain, and Portugal (Orgilés et al., 2020).

In Peru, coping responses assessed using the Spanish version of the Brief COPE (Coping Orientations to Problems Experienced) questionnaire and in Russia and Kyrgyzstan, coping strategies assessed with Russian adaptation of the Brief COPE questionnaire did not find any difference in the prevalence of coping responses after accounting for age and gender. In all three countries the coping responses were associated with the same four coping domains, that is, problem-focused coping, socially supported coping, avoidance, and emotion-focused coping. The study found that COVID-19 pandemic has affected many aspects of people's day-to-day lives and the circumstances of the COVID-19 pandemic have led to a notable increase in individual anxiety, depression, and other symptoms of distress (Voronin et al., 2020). It is therefore important to document a variety of coping responses that can allow people to overcome the stresses of the pandemic.

There was also anxiety about this arrival and consequences of this virus in the general population in Nepal. Thus, Government of Nepal started some precautionary measures to curtail the spread and impact of the virus after cases started and deaths started to rise in China and other countries. Screening of passengers from China, Thailand and Japan started at Tribhuvan International airport from 17 January 2020 (Marahattha, Paudel & Aryal, 2020). First case of Covid-19 was confirmed in Nepal on 23 January 2020 in a male student who returned from Wuhan, China and Nepal closed down Rashuwagadhi border with China on 28 January 2020. Visa-on-arrival service was suspended for the nationals of five countries – China, South Korea, Japan, Italy and Iran – that were badly affected by COVID-19 from 7 March 2020.

All the academic classes in Nepal were suspended all the examination were postponed until further notice on 19 March 2020. All international flights were stopped from 22 March and vehicular movements on long routes were closed from 23 March 2020. The second case of COVID-19 was confirmed in Nepal on 23 March 2020 on a female who came back to her home in Kathmandu from France through Doha, Qatar and the government of Nepal imposed a lockdown to halt the spread of the virus on the following day. Nationwide lockdown came into effect from 24 March 2020 and it was highly effective for the first few months that helped to contain the disease.

However, lockdown was lifted on 21 July 2020 prompting a sudden increase in not only the cases but also the deaths in the Kathmandu valley and Nepal. Since the beginning of the lockdown, the majority of people have stayed at home and self-isolated to protect themselves. A community level online survey conducted in Nepal with using CPDI found 11.5% of the 410 respondents with mild to moderate distress whereas only 0.5% had severe distress (Shrestha et al., 2020a). Another online cross-sectional study done in June 2020 in a gated community of Kathmandu using modified CPDI scale found mild to moderate level of peritraumatic distress among 17.82% of the 45 respondents but they did not find significant associated between CPDI score with age and gender of the respondents (Sampson & Shah, 2020).

The lockdown, quarantine and isolation can precipitate a range of psychological reactions such as increased anxiety, stress, irritability, low mood and fears (based on real or perceived threat). Such emotional conditions negatively impact an individual's functional state both physical and mental. This could result psychological distress

among the residents of Kathmandu, which needs to be studied. It is required to study the various coping mechanisms used to deal with this distress along with the felt mental healthcare needs among residents of selected communities of Kathmandu valley.

1.2 Statement of the Problem

Lockdown created a lot of anxiety followed by traumatic experiences for residents of Kathmandu. At first they saw as lot of temporary/migratory residents started to flee Kathmandu valley fearing to contract the disease and possible death in the family. The lockdown was very effective on the first two-three months in the valley, which helped to control the disease but it also fostered economic hardship to the remaining temporary as well as permanent residents of the valley resulting in anxiety, depression and stress. These problems increased when the lockdown was lifted in the country and cases started to increase in the valley. This was further aggravated leading to the home isolation and deaths at home/on the way to hospital due to limited capacity of health care facilities to handle surge in the COVID-19 cases. This has created a unique situation to cope with the psychological distress and mental healthcare needs due to COVID-19 among the residents of Kathmandu valley.

This study tries to find answers of the following question:

1. What is the prevalence of peritraumatic distress among residents of selected communities of Kathmandu valley?
2. What are the factors associated with peritraumatic distress among residents of selected communities of Kathmandu valley?
3. What are the coping mechanism and mental health care needs for peritraumatic distress among residents of selected communities of Kathmandu valley?

1.3 Objective of the Study

The general objective of this study is to find the psychological distress, coping mechanism and mental health needs due to COVID-19 among residents of selected communities of Kathmandu Valley

The specific objectives of this study:

1. To compute prevalence of peritraumatic stress due to COVID-19 among residents of selected communities of Kathmandu valley
2. To determine factors related to the peritraumatic stress due to COVID-19 among residents of selected communities of Kathmandu valley
3. To measure coping mechanism and mental health needs due to peritraumatic stress due to COVID-19 among residents of selected communities of Kathmandu valley

1.4 Significance and Importance of the Study

There is a paucity of research on the peritraumatic distress, coping mechanism and mental health needs due to COVID-19 in Kathmandu valley. The study will help to unravel the factors responsible for this distress and help the concerned authorities to work on them.

1.5 Limitation of the Study

Since this study is based on the purposive sampling of residents of ward number 5 of Nagarjun Municipality and ward number 7 of Kathmandu Metropolitan City, the results are not generalizable for the population of these municipalities.

1.6 Organization of the Study

This dissertation is organized in five chapters. Chapter one deals with the study introduction which further includes the topics like background of the study, statement of the problem research questions, major objectives, significance and the importance of the study. Limitations of the study and the organization of the study

Chapter two presents literature review and analytical approach to this thesis. It mainly consists of theoretical and empirical review.

Chapter three deals with the research methodology and looks at the research design, rationale of the site selection, universe and sampling, nature and sources of data, methods of data collection and data analysis methods reliability and validity of the data.

Chapter four includes data analysis and presentation and chapter five presents summary, and conclusion.

CHAPTER II

REVIEW OF LITERATURE

This chapter presents the review of literature related to mental health and specifically the peritraumatic distress due to COVID-19 followed by coping mechanism used and mental health needs in the time of this pandemic. The reviews are organized in an inverted triangle format, that is, reviews from international region are presented first followed by regional and national level.

2.1 Sociology of Health

Sociology can be defined as the scientific study of the dynamics of society and their intricate connection to patterns of behaviour. It focuses on social structure and how the structures interact to modify human behaviour, actions, opportunities, and how the patterns of social existence engender social problems. The process of social interaction itself may put individuals at risk of some communicable disease such as tuberculosis (TB), severe acute respiratory syndrome (SARS), measles and COVID-19. The historical focus of sociology is on social problems in human society. Social problems include health problems, crime, deviance, violence, poverty, inequality, population problems, delinquency, and institutional instability. It is important to note that just as crime is damaging to the society or individual, so is any health problem. Sociologists have relied on quantitative and qualitative techniques to establish universal laws governing human societies (Amzat & Razum, 2014).

The sociology of health encompasses social epidemiology, disease, mental health, disability, and medicalization. The principle insight of sociology is that health and illness cannot be simply regarded as biological or medical phenomena. They are perceived, organized, and acted on in a political, economic, cultural, and institutional context. The idea of the social construction of health emphasizes the socio-cultural aspects of the discipline's approach to physical, objectively definable phenomena. Moreover, the way that we relate to them is in constant evolution. As we learn to control existing diseases, new diseases develop. As our society evolves to be more global, the way that diseases spread evolves with it (Little, McGivern & Kerins, 2016), which is clearly the case of COVID-19 pandemic.

The COVID-19 pandemic has drastically changed human life on a global scale. Nearly overnight, in countries worldwide, routines reduced to all, but a handful of activities, and daily mobility patterns became concentrated around our homes, social distancing measures and lockdowns (Gyanwali, 2020). Corona virus has increased fear among the people across the world which directly affects all socio-cultural dimension as educational, economic, inequality and domestic violence, cultural, religious, risk perception, and suicide activities of people. People suffering from this disease are unable to do their daily activities and on the other hand, family members need to spend their time for the treatment of the diseased person. To save people by the effect of corona virus, the Government of Nepal developed the 6T formula: travel restriction, testing, tracing, tracking, treatment, and, together with the lockdown process in highly infected area. The government also imported different materials like masks, ventilators, personal protective equipment, sanitizer, drugs, for the prevention, treatment and containment of COVID-19 disease. On the other, most of the rural, as well as urban people relied on- home remedies by using different plants as medicine. Most of the people used their indigenous knowledge by taking foods producing heat, many different types of herbal medicine like turmeric powder, *jwano*, *jimbu*, *bhodo*, *satuwa*, *jira*, *lwang*, *chiraito*, and flower of *tulsi* are used according to their availability to overcome the COVID-19 disease (Sapkota, 2020). People infected with COVID-19 were initially treated in the quarantine centers and health care centers but they also followed the home isolation in the later phase of the pandemic as the cases increased in the country.

2.2 Mental health and Peritraumatic Distress

Several studies suggest that there has been psychological impact of the epidemic on the general public, patients, medical staff, children and older adult. A study of the china suggested that younger people reported a considerably higher disorder and depressive symptoms as compared to older people during pandemic. The pandemic has not only brought the risk of morbidity and mortality from infection but also psychological burden. (Dangal & Bajacharya, 2020)

World Health Organization (WHO) defines health as state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (WHO Constitution, 1948). Mental health includes our emotions and, many factors

contribute to psychological and social well-being. It affects how we think, feel and act and helps to determine how we handle genes or brain chemistry, life experiences, such as trauma or abuse, family history of mental health problems. Positive mental health allows people to, realize their full potential and cope with the stresses of life. Mental health is a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community. Mental health is about not only avoiding active conditions but also looking after ongoing wellness and happiness. A person coping with mental health difficulties will usually need to make changes to their lifestyle to facilitate wellness. People with conditions such as an anxiety or depressive disorder may benefit from relaxation techniques, which include deep breathing, meditation, and mindfulness. Having a support network, whether via self-help groups or close friends and family, can also be essential to recovery from mental illness (Klerman et al., 1992).

The COVID-19 pandemic research shows traumatic stress symptoms as a result of this on going global stressor. Current pathogenic event models focus on past, and largely direct, trauma exposure to certain kinds of life-threatening events. Yet, traumatic stress reactions to future, indirect trauma exposure, and non-Criterion events exist, suggesting COVID-19 is also a traumatic stressor which could lead to post-traumatic stress disorder (PTSD) symptomology. Taken together, COVID-19 can be understood as a traumatic stressor event capable of eliciting PTSD-like responses and exacerbating other related mental health problems e.g., anxiety, depression, psychosocial distress, etc. recent evidence supports this interpretation, exposure to COVID-19 related news in the initial stages of the outbreak was associated with negative affect, anxiety, depression and stress. Overall, participants had PTSD-like symptoms for events that had not yet happened, challenging the nature of traumatic stress as a problem pertaining only to the past. Participants reported these reactions whether they had been directly (e.g., COVID-19 diagnosis) *or* indirectly exposed (e.g., via media) to COVID-19, challenging the idea that people need to experience a direct, in person event to develop PTSD-like symptoms (Bridgland et al., 2021).

A review article found that novel COVID-19 pandemic is affecting hundreds of countries with increasing cases and deaths. Mandatory social distancing globally,

quarantines, travel restrictions, and cancelations of schools and large gatherings have been instituted to decrease viral spread. This has sparked perpetual worldwide fear, panic, anxiety, depression, and distress along with concern for suicide, grief, PTSD, guilt, and long term mental health disorders (Wright, Sarangi & Ibrahim, 2020). A global analysis of the literature on COVID-19 highlights the need for research from Africa which remains under researched. WHO warned that in the first year of the pandemic, Africa could see as many as 44 million people infected with COVID-19 and estimates up to 190 000 deaths among Africans from COVID-19 depending on the intervention measures taken to stop the spread. The impact of COVID-19 on mental health in sub-Saharan Africa could be immense, given the weak health care systems. (Semo & Frissa, 2020)

Frequent symptoms of psychological distress include irritation, anger, isolation, exhaustion even over doing nothing. Some may also feel a loss of appetite or increase in appetite, obstruction in carrying out of daily routine. They could also have sleeping problems, bowel and bladder disturbances like having to go the toilet frequently. The COVID-19 Peritraumatic Distress Index (CPDI) scale developed in China is easy to use, valid and reliable tool to assess the psychological distress in this pandemic. Anxiety, depression, post-traumatic stress symptoms, and insomnia have been the most often explored psychopathological states among COVID-19 researches and the CPDI measures the frequency of anxiety, depression, specific phobias, cognitive change, avoidance and compulsive behaviour, physical symptom and loss of social functioning in the past week. Range is from 0 to 100. The total score is categorized as follows: no distress (<28), mild to moderate distress (28-51), severe distress (52). The content validity of the CPDI was verified by psychiatrists from the Shanghai Mental Health Center (Talevi et al., 2020).

A study done in China using CPDI found substantial stress and trauma-related mental health problems in the Chinese adults during the COVID-19 outbreak (Guo et al., 2020). China kept a large number of people in isolation and affected many aspects of people's lives. It has also triggered a wide variety of psychological problems, such as panic disorder, anxiety and depression. A nationwide large-scale survey of psychological distress in the general population of China conducted during the tumultuous time of the COVID-19 epidemic found the mean (SD) CPDI score of the

sample was 23.65 (15.45). Almost 35% of the respondents experienced psychological distress (29.29% of the respondents' scores were between 28 and 51, and 5.14% of the respondents' scores were ≥ 52). Multinomial logistic regression analyses showed that one's CPDI score was associated with their gender, age, education, occupation and region. Female respondents showed significantly higher psychological distress than their male counterparts. Similarly, people with higher education tended to have more distress, probably because of high self-awareness of their health. The CPDI score of respondents in the middle region of China (including Hubei, the centre of the epidemic) was the highest (mean (SD) 30.94 (19.22), $F=929.306$, $p<0.001$), since this region was affected by the epidemic most severely. Meanwhile, psychological distress levels were also influenced by availability of local medical resources, efficiency of the regional public health system, and prevention and control measures taken against the epidemic situation (Qiu et al., 2020).

A survey aimed to describe psychological distress in Indonesia's general population during the COVID-19 pandemic found increased the level of stress among family members due to lockdown as it forced people to stay at home, work from home, and school from home. It also found that mental health issue regarding the COVID-19 pandemic needs consideration on multiple levels as not only the vulnerable groups such as older age groups, women, and healthcare workers but the general population also showed mental health problems. The community needs to understand the magnitude of the problem during the COVID-19 pandemic to ensure they followed every health protocol assigned during the early break of the COVID-19 pandemic as more than forty percent of respondents rated their psychological state having moderate to severe distress (Respati et al., 2020).

In India, COVID-19 created a lot of concern for people leading to heightened levels of anxiety and stress and perceived mental healthcare need among adult Indian population during the COVID-19 Pandemic. There is a positive attitude of public towards social-distancing, avoiding party and travel and maintaining hygiene. People report anxiety, worries, paranoia about acquiring infection and sleep disturbances during this pandemic. More the 80 % people perceive mental healthcare need to deal with their issues during this COVID-19 pandemic. (Roy et al., 2020). Another study aimed to assess stress and factors that influence it in a representative population in the

state of Tamil Nadu using COVID-19 peritraumatic Distress Index (CPDI) found that besides physical health, mental health also takes a strong hit during a pandemic. The stress, fear and panic could fuel emotional and behavioral turmoil, precipitating factors play a vital role in determining the behavior of the public and their contribution to lockdown of data isolation (Ramasubramanian et al., 2020).

An online cross sectional study conducted with COVID-19 Peritraumatic Distress Index (CPDI) among the adult general population across 13 countries including Nepal found the highest level of distress in Vietnam and lowest level of distress in Sri Lanka. It showed the adverse psychological health effects following quarantine which include emotional disturbance, depression, stress, low mood, irritability, insomnia, post-traumatic stress symptoms, anger, and emotional exhaustion (Marzo et al., 2021). The reported adverse psychological effects following quarantine were post-traumatic stress symptoms, confusion, anger, stress due to longer quarantine duration, fear of contracting the virus and frustration. (Roy et al., 2020).

A systematic review of studies on impact of COVID-19 pandemic on mental health in general population in various countries including Nepal showed relatively high rates of symptoms of anxiety, depression, post-traumatic stress disorder and psychological distress (Gautam et al., 2020). Pandemic has created unprecedented health problem in the Nepalese society. Psychological stress, anxiety and depression are general population and also health professionals. Adequate intervention and evaluation into mental health awareness and psychosocial support focused primarily on health care workers (Shrestha et al., 2020a).

The COVID-19 pandemic has provoked a wide variety of psychological problems such as anxiety, depression, and panic disorders. online survey attempts to assess the psychological impact of COVID-19 and its associated variables among healthcare workers in Nepal. The study findings revealed a considerable proportion of anxiety, depression and insomnia symptoms among health workers during the early phase of the pandemic in Nepal. The study also found that level of stress was found to be similar among those staying with family members and those living alone. However, it was found that those whose permanent residence was out of Kathmandu valley but were living in Kathmandu as temporary residents experienced more stress than those staying at their home (Kafle et al., 2021).

Previous studies that assessed the psychosocial impact of epidemics or pandemics such as SARS and COVID-19 found high levels of mental distress including panic attacks, and psychotic symptoms among the general public. However, more than half of health workers were categorized as having ‘mild-to-severe distresses due to the COVID-19 pandemic. Female participants and doctors were having significantly more distress. These findings will help refine the understanding of the influence of the COVID-19 pandemic on psychological health among different groups of health service providers and highlight the need for appropriate implementation of plans that will help prevent and manage the distress among health service providers in the current pandemic (Kafle et al., 2021).

Due to a greater risk of exposure to the virus, increased working hours, and fear of infecting their families, health service providers are more vulnerable to emotional distress than the general population during this pandemic. Fear and Anxiety about a new disease and uncertainty can be overwhelming and cause strong emotions in adults and children, public health actions, such as social distancing stress and anxiety. A study found that majority (66.7%) of the students have experienced anxiety because of this pandemic. Similarly, females had increased levels of anxiety as compared to males. So, it is recommended that governments and organizations collaborate with educational institutions to ensure psychological and social support to the student (Kafle et al., 2021).

The impact of COVID-19 increased psychological distress and psychological wellbeing of people. Perceived psychological distress of the residents due to COVID-19 by background characteristics. Around the fifth of the participants reported three different symptoms of psychological distress such as fearfulness, anxiety and worry and sadness. Study has demonstrated that the prevalence of psychological distress is higher among households with low income and those residing in rental/room house. Similarly, the prevalence of psychological distress was higher among female than male. Nevertheless, it is important to recognize short and longer-term mental health and psychological consequences of the current crisis (Gautam et al., 2020).

A study done on health-choice in Kathmandu Valley with 665 participants found that 67.9% had decreased consumption of tobacco and 53.6% reported decreased consumption of alcohol during the lockdown period. Participants reporting that they

would have visited a hospital if they had a flu-like illness increased from 22.6% pre-pandemic to 58.6% post-pandemic. Increase in news consumption was reported by 79.2% of the study population. Out of 43 participants with a chronic condition, 30 reported having missed follow up due to the lockdown. (Shrestha et al., 2020b)

The Covid-19 pandemic has forced people in social distancing and isolation, the general public are under unprecedented mentally pressure that may result into spectrum of short and long term psychological health issues like anxiety, stress depression, panic attack and post-traumatic stress disorder. Psychological stress, anxiety and depression are affecting not only COVID-19 patients but also health professionals and general population. There is lower rate of psychological distress in city dwellers and people with low education. (Shrestha et al., 2020b). A study done in Kathmandu; Nepal found that around 18% mild to moderate peritraumatic distress among residents of a gated community. However, they did not find any association between peritraumatic distress with age, sex and comorbidities of the respondents (Sampson & Shah, 2020).

2.3 Coping Mechanism

Coping mechanisms are the strategies people often use in the face of stress and/or trauma to help manage painful or difficult emotions. Coping mechanisms can help people adjust to stressful events while helping them maintain their emotional well-being. People tend to cope with stress and anxiety in one of the three ways. *Problem-focused coping* refers to efforts to alter the stressful situation itself. *Emotion-focused coping* refers to efforts to reduce one's response to the stressful situation. Finally, there is *avoidance-oriented coping*, in which the stressor is avoided altogether (Zaromb, Burrus and Roberts, 2012). There is much anxiety and fear due to the high infectivity, severe morbidity and mortality, uncertainty and Changing knowledge and information brought about by this new virus. Self-care and healthy coping strategies are important and applicable to all individuals/these include healthy diet, sleep, physical and relaxation exercises (Sim & How, 2020).

COVID-19 is a direct threat to our life or the lives. We are all either vicariously witnessing trauma, through media or through supporting others, or directly experiencing trauma, by becoming ill, isolated, or experiencing the plight of close

others. These acute stress reactions are natural, but it is important to promote self-care, social support, and sleep, in order to prevent prolonged psychological consequences such as peritraumatic stress disorder and depression. Another common feeling is moral distress and outrage, expressions of anger at witnessing injustice and poor management of our national crisis. For coping with all of these issues, we emphasize ‘trauma informed’ strategies: 1. Use strategies to reduce stress throughout the day 2. Recognize and reduce traumatic reactions. 3. Understand organizational and community perspectives (UCSF, 2020).

Coping strategies represent an important issue since lockdowns can potentially produce different kinds of risks to families’ wellbeing. Recent studies have revealed that the current COVID-19 lockdown has impacted children’s physical activity and induced longer screen times, irregular sleeping patterns, less favorable diets, intolerance to rules, mood changes, and problems with sleeping alone. Parents, on the other hand, have been reported as worrying about their ability to provide income for their families, experiencing general stress and feelings of tiredness, having difficulties in their relationships and with managing children’s academic pursuits, and suffering from poor mental and physical health. The psychological responses during previous infectious disease outbreaks included anxiety/fear, depression, anger, guilt, grief and loss, peritraumatic distress. Meanwhile, the coping strategies adopted included seeking alternatives, self- and other-preservation, seeking social support, avoidance, and positive appraisal of the situation (Salin et al., 2020).

A study done in Finland examined how families with children coped during the COVID-19 lockdown in Finland and what kind of coping strategies they developed. The results showed that Finnish families employed coping strategies on three levels: macro environmental, relationship and individual. This supports the argument that to better understand families’ coping strategies, the macro societal environment surrounding families, their relationships, and the interactions between family members, as well as individual decisions and attitudes, should be taken into account. The results revealed that their coping strategies were situated on three analytical levels: (1) macro environmental flexibility of paid work, services and support provided by society, social relationships, and unofficial support relationship agreements about everyday practices, flexibility in everyday practices, family time,

and family conversation; and individual personal attitude, personal time, and flexibility regarding paid work standards. another conclusion drawn from the results is related to the pronounced role of relationship-level coping strategies. The families, coping strategies at the relationship level were clearly the most important. Results of this study revealed that all three levels of analysis: macro environmental, relationship and individual, should be taken into account in order to understand coping strategies employed by families with children during the COVID-19 lockdown in Finland. Indeed, during societal crises (Salin et al., 2020).

First thing of the coping stress is pay more attention to the positive outlook of life, spend time to work or other activities like, playing indoor games and watching TV and film, or socialize with people over phone calls. Many people are also practicing mindful meditation yoga with help the body relax and the mind compose. Covid-19 outbreak have demonstrated increased psychological distress and adverse impacts on mental health and psychological wellbeing of people As the lockdown seems to be stressful and can precipitate new symptoms and aggravate the existing health conditions, it is imperative that measures be taken in order to manage the stress such as lifestyle modification, spending less time on collecting news regarding lockdown, and creating a space for more interaction with family members and engaging in recreational activities. (Gautam et al., 2020).

This pandemic must include plans for addressing mental health issues for the public, the health-care professionals and the other vulnerable sub-populations, such as people with preexisting psychiatric conditions patients affected by COVID-19, pregnant women, older adults, children and people in detention. Public health surveillance during and after this pandemic must include plans for mental health surveillance to allow for an adequate response to the anticipated mental health issues. Some general steps can be taken to face the inevitable mental health consequences of this pandemic: designing plans to contrast the loneliness and boredom due to social isolation, fear, anxiety, depression and post-traumatic stress were common psychological symptoms reported across global disasters, both natural and man-made ones.

Underlying reasons for these symptoms maybe include disruptions in daily routine due to restrictive measure, social isolation, job loss and worries for financial security, their loved ones' well-being, the treatment process, and information pertaining to the

disease. Health-care workers, people with preexisting psychiatric conditions, pregnant women, older adults, children and people in detention are examples of vulnerable subpopulations at risk of further distress given their specific condition. Therefore, in addition to efforts at various levels to prevent the spread of the disease, the psychological crisis intervention should be formally integrated into public health preparedness and emergency response plans, as well as part of the Government actions; moreover, evidence-based recommendations for taking care of mental health and well-being should be made accessible and usable for the public. Strategies against psychological distress should consist of actions aimed at helping infected and quarantined patients, as well as interventions targeting the general population and the groups at higher risk of mental health impairment. Tele medicine and digital psychiatry are the future of medicine in the context of global disasters and health emergency, but improvements are necessary (Talevi et al., 2020).

A study from Sub-Saharan Africa found the immense impact of COVID-19 on mental health and given the weak health care systems, it suggested to safeguard the social and cultural resilience factors and coping mechanisms. Some of the resources people access for relief from stress and mental problems in this region was keeping in touch with others, attending faith and religious events, engaging in prayers and reading scriptures. However, COVID-19 lockdowns in sub-Saharan Africa have hindered access to social resources. To make the services and social resources that are lacking during the lockdown accessible, the study recommended employing mass media for communication of self-help measures that are likely to reduce stress. TV and radio should be used frequently to broadcast religious services and relevant talk shows that can help improve mental health. This is important as online and digital platforms used in high income settings are a limited option for mental health education and counselling services in sub-Saharan Africa mostly due to low smartphone penetration and internet access (Semo & Frissa, 2020).

The association found between receiving psychological support and the absence of peritraumatic distress if confirmed by studies on large and diverse samples of the population should induce health decision makers to adapt the resources of mental health specialists so that they promote awareness campaigns for people with suffering psychological promptly request support. Mental health services, religious

organizations and other community services need to be equipped with appropriate health technologies and procedures to cope with situations such as the COVID-19 pandemic to continue to support the social, spiritual and mental health needs of the population and thus build a more resilient community (Costantini & Mazzotti, 2020).

UNICEF Nepal has included 100 younger volunteer participate in a discussion about the impact of COVID-19 on their mental health and ways of coping mechanism. Many of these posts comprised fake news and rumors. Instated of being affected by these worrying news, one of the volunteers decided to spend time to taking online course, meditating and planning carrier. Another volunteer said that visually impaired himself, touched on the difficulties faced by people with disabilities but determine to stay positive. The lockdown has created challenges as we have to maintain physical distance but possibilities to increase our intellectual capability hast not been harmed. These volunteers with a platform to openly discuss their experience and challenges due to COVID-19 and lockdown young people are facing anxiety, tiredness, anger but it is important to speak up, connect with others and know that you are not alone. We need to stay healthy in this time of crisis.

Coping mechanism is widely measured using Brief COPE scale, which consists of 28 items that measure 14 different coping strategies: active coping, planning, positive reframing, acceptance, humor, religion, using emotional support, using instrumental support, self-distraction, denial, venting, substance use, behavioral disengagement, and self-blame. Coping questionnaires aim to measure coping strategies and ability to self-regulate in response to different experienced stressors, individual behaviors relating to coping can be challenging to measure, as we respond differently to the same type of stressor, depending on several different factors including our character traits, specific environment, support networks, and individual life experiences. Coping questionnaires are helping us to understand our coping strategies at any given moment towards different situations in our lives such as COVID-19 pandemic. Coping strategies can be positive, for example, tapping into your social support network, or negative, such as turning to alcohol or drugs. coping is divided into exploring two key areas: coping styles or coping strategies. While they seem similar, there is a core distinction between the two coping styles. Research into coping styles has received a fair amount of criticism. The main criticism is that that in focusing only on coping

styles, the variability and complexity of coping efforts overall are not captured effectively, coping style refers to your disposition towards handling challenging situations or stressors. Therefore, it is required to study coping strategies used by the general public during COVID-19 pandemic using Brief COPE questionnaire.

CHAPTER III RESEARCH METHODOLOGY

3.1. Research Design

This is a quantitative survey with a cross-sectional design. Data collection was done using printed questionnaires in the study areas. This questionnaire was self-administered with the literate respondents whereas it was filled with face-to-face interview with illiterate respondents.

The minimum sample size for this study was based on the Cochran's formula for cross sectional studies using known proportion:

$$\text{Sample size} = n = (Z/e)^2 * p * q$$

Where,

Z = Value of Z distribution at 95% confidence interval (5% alpha) = 1.96

p = 17.82% (reported mild to moderate peritraumatic distress among persons without COVID-19 infection by Sampson and Shah 2020)

q = 1 – p = 1 – 17.82 = 82.18%

e = Margin of error for the known proportion = 10% (i.e. p lies between 7.82% and 27.82%)

$$\text{Minimum sample size for the study} = n = (Z/e)^2 * p * q = (1.96/0.1)^2 * 0.1782 * 0.8218 = 56.26 \sim 57$$

We have included a non-responses rate of 5% and the final minimum sample size for this study was determined as: 57 + 5% of 57 = 57 + 2.85 = 60 respondents.

We intended to include 30 COVID-19 infected persons but only found 29 and they are included in this study to compare peritraumatic distress, coping mechanism and mental healthcare needs among the surveyed population.

3.2. Rationale for the Selection of Study Area

The study areas were selected purposively to self-administer the questionnaire or do face-to-face interview with the persons living in the Nargarjun Municipality and Kathmandu Metropolitan City. This was a convenient sampling as the researcher lived

in the Ward number 5 of Nagarjun Municipality and had known family members, friends and acquaintances in Ward Number 7, Kathmandu Metropolitan City.

3.3. Sources and Nature of Data

Data came from four board domains covered in the study tool. The first domain contains data on background characteristics of the respondents, which was compiled from various national surveys. The second, third and fourth domains contains data of peritraumatic distress, coping mechanisms and mental health needs due to COVID-19 respectively from standard tools. All the data were quantitative in nature.

3.4. Universe and Sampling

The universe of the study is all the residents of Ward Number 5 of Nagarjun Municipality and Ward Number 7 of Kathmandu Metropolitan city. The sampling consists of purposively selected residents of these two local bodies of Kathmandu Valley. The total number of respondents in this study were 89.

3.5. Data Collection Tools and Techniques

The COVID-19 peritraumatic distress index (CPDI) questionnaire was used to measure the extent of psychological distress among general population after they underwent the COVID-19 phenomenon (Qiu et al., 2020, Sampson & Shah, 2020), which is a freely available validated tool in English language. This tool was forward translated by the researcher and backward translated by a bi-lingual expert. The original CPDI tool was compared with the backward translated tool and inconsistencies in the language were modified in the Nepali tool by the researcher. Mediating variables included in the study were exercise, sleep and diet with respect to the peritraumatic distress and COVID-19 status, treatment center and cost of the treatment. Further, coping mechanisms was measured using Brief COPE Inventory, which is also a freely available validated tool (Brief COPE 2020). This tool was also forward and backward translated following the same rule/process as CPDI tool and finalized by the researcher. The perceived mental healthcare needs (PMHCN) due to COVID-19 was measured using five items developed to study the phenomenon in a gated community of Kathmandu (Sampson & Shah 2020). These tools were pre-tested in purposively selected 6 respondents of Nagarjuna Municipality and necessary

modifications were done based on the responses as well as feedback of the respondents on each question and the rating scales used to measure the CPDI, Brief COPE and Mental Health Care Need items. The study tool was then compiled, printed and self-administered to the literate respondents with implied informed consent whereas it was filled using face-to-face interview with the illiterate respondents by the researcher after getting informed consent from them.

3.6. Interview Schedule

The interview schedule is a questionnaire consisting of four parts: Background characteristics of the respondents, Covid-19 Peritraumatic Distress Index (CPDI) scale, Brief COPE scale and Perceived Mental Healthcare Needs (PMHCN) questions. Background characteristics were compiled from the national surveys whereas CPDI, Brief COPE and PHMCN questions were adopted from the standard tool and/or literature. All the data will be quantitative in nature. It is attached in the annex I.

3.7. Data Analysis and Interpretation

Data entry was done in Microsoft Excel 2016 version and it was imported in the IBM SPSS 20 software for statistical analysis. Descriptive statistics (mean, standard deviation, median, interquartile range, percentage) were used to describe the background, CPDI, Brief COPE and PMHCN data. Appropriate statistical tests were used to find the factors related to the COVID-19 peritraumatic distress based on background and mediating variables. Brief COPE sub-scales and PHMCN items were compared among respondents with or without COVID-19 infection prior to this study. P-value less than 5% (0.05) was considered as statistically significant result for all the inferential analysis.

3.8. Reliability and Validity

Since CPDI, Brief COPE and PMHCN were validate tool further evidence for its content validity were not collected. However, as the translated tools in Nepali language was used, face validity was ensured with the pre-test whereas internal consistency reliability of CPDI, Brief COPE and PHMC tools were computed using coefficient alpha (Cronbach's alpha). Cut-off value of 0.7 was used to determine

whether the tools were internally consistent or not and interpreted accordingly in this study.

3.9. Ethical Consideration

The questionnaires were administered after getting the informed consent only. Respondents were informed that they could decide to provide/refuse to answer to specific questions or any section of the questionnaire. It was not administered to those respondents who refused to participate in this study.

CHAPTER IV
DATA ANALYSIS AND PRESENTATION

4.1 Background Characteristics of the Respondents

Age, sex, education status, occupation, religion, caste/ethnicity were the background variables of the study and Table 1 shows the distribution of these variables.

Table 1: Distribution of background variables (N=89)

Variable	N	Percentage (%)
Age		
<20	2	2.2
20-29	10	11.2
30-39	24	27.0
40-49	21	23.6
50-59	22	24.7
60-69	6	6.7
70+	4	4.5
Sex		
Male	42	47.2
Female	47	52.8
Highest education level		
Primary	17	19.1
Secondary	19	21.3
Higher Secondary	29	32.6
Bachelors	17	19.1
Masters	7	7.9
Occupation		
Service	33	37.1
Business	27	30.3
Homemaker	23	25.8
Other-Politics	1	1.1
Other-Retired	3	3.4
Other-Student	2	2.2

Religion		
Hindu	74	83.1
Buddhist	12	13.5
Kirat	1	1.1
Islam	2	2.2
Caste/ethnicity		
Brahmin	27	30.3
Chhetri	29	32.6
Newar (Janjati)	17	19.1
Other Janjati	15	16.9
Other-Sanyashi	1	1.1
Marital Status		
Single	9	10.1
Married	74	83.1
Separated	1	1.1
Widow/widower	5	5.6

Source: Field Survey 2021

In age variable around 1 out of 10 respondents are of 20-29 years of age. Similarly, 1 out of 4 are of 50 to 59 years and 1 out of 20 are of 70 and above age. Further, females were nearly 5% higher than male respondents. In education nearly 1 out of 5 are of primary level, 1 out of 3 are of higher secondary level and 1 out of 12 are of master's degree. Similarly, in occupation nearly 1 out of 3 are service holders and 1 out of 4 are homemaker. Similarly, nearly 4 out of 5 are Hindu whereas 1 out of 7 are Buddhist. Likewise, nearly 3 out of 10 respondents are Brahmin, 1 out of 3 are Chhetri, 1 out of 5 are Newars respondents and other Janjati respectively. Further, 1 out of 10 are single, 4 out of 5 are married and 1 out of 12 are widow/widower. In a community based study conducted online in Nepal, 4 out of 10 respondents were of below 30 years of age and nearly 2 out of 3 were males, which is different from this study conducted in the two communities of Kathmandu valley (Shrestha et al., 2020a). The same study found 9 out of 10 respondents following Hinduism compared to 8 out of 10 in this study whereas both studies found 1 out of 5 respondents with primary level of education. Both studies found around 7 out of 10 with employment and 6 out of 10 as Brahmin/Chhetri caste.

4.2 Mediating Variables and its Distribution

Mental exercise, physical exercise, type of diet, frequency of diet, frequency of sleep during COVID-19 period as well as COVID-19 infection status, place of treatment and tentative cost for the treatment were the mediating variables of this study. Table 2 shows the distribution of respondents by these variables.

Table 2: Distribution of mediating variables (N=89)

Variable	n	Percentage (%)
Mental exercise during COVID-19 - Yes (Multiple responses)	26	29.2
Physical exercise during COVID-19 – Yes (Multiple responses)	44	49.4
No exercise during COVID-19 – Yes (Multiple responses)	26	29.2
Vegetarian diet during COVID-19 - Yes (Multiple responses)	34	38.2
Non-vegetarian diet during COVID-19 - Yes (Multiple responses)	35	39.3
Jadibudi (<i>Besar pani, Gurjo etc.</i>) consumption during COVID-19 – Yes (Multiple responses)	40	44.9
Frequency of diet during COVID-19		
Less than usual	16	18.0
As usual	53	59.6
More than usual	20	22.5
Frequency of sleep during COVID-19		
Less than usual	16	18.0
As usual	63	70.8
More than usual	10	11.2
Infected with COVID-19		
No	60	67.4
Yes	29	32.6
Place of treatment for COVID-19 (N=29)		
Home	19	65.5
Government health facility	8	27.6
Private health facility	2	6.9
Expenses for COVID-19 treatment (N=28)		
0	2	7.1
1 – 9,999	9	32.1

10000 – 24,999	10	35.7
25,000 – 99,999	3	10.7
100,000 – 499,999	2	7.1
500,000+	2	7.1

Source: Field Survey 2021

Nearly 3 out of 10 respondents did mental exercises whereas nearly half of them did physical exercise and 3 out of 10 did not do any exercise during COVID-19. Nearly 4 out of 10 ate vegetarian and non-vegetarian diets whereas nearly 45% consumed Jadibuti. Around 6 out of 10 had usual diet and around 7 out of 10 had usual sleep during COVID-19 pandemic. Nearly 1 out of 3 were infected with COVID-19 and 2 out of 3 of the infected were treated at home. Majority of the infected spent between 10,000 and 2500 rupees for the treatment of COVID-19. Self-care and healthy coping strategies are important and applicable to all individuals/these include healthy diet, sleep, physical and relaxation exercises (Sim & How 2020). An article from Nepal stressed the importance of emotional management, relationship management, meditation and relaxation exercise can positively contribute in reducing psychological problems of COVID-19 (Maharjan, 2020).

4.3 Brief COPE Scale and its Distribution

Among Brief COPE items, “I have been praying or meditating” had the highest mean score followed by “I have been thinking hard about what steps to take” and “I have been trying to find comfort in my religion or spiritual beliefs”.

Table 3: Distribution of Brief COPE items and their summary statistics

SN	Variable	I haven't been doing this at all	I have been doing this a little bit	I have been doing this a medium amount	I have been doing this a lot	Summary statistics (Mean ± SD)
1	I've been turning to work or other activities to take my mind off things.	31	23	20	15	2.21±1.1
2	I've been concentrating my efforts on doing something about the situation I'm in.	9	21	22	37	2.98±1.03

3	I've been saying to myself "this isn't real.".	39	16	17	17	2.13±1.18
4	I've been using alcohol or other drugs to make myself feel better.	66	9	13	1	1.43±0.78
5	I've been getting emotional support from others.	15	32	20	22	2.55±1.04
6	I've been giving up trying to deal with it.	79	7	1	2	1.17±0.55
7	I've been taking action to try to make the situation better.	12	20	16	41	2.97±1.11
8	I've been refusing to believe that it has happened.	60	15	6	8	1.57±0.96
9	I've been saying things to let my unpleasant feelings escape.	21	18	22	28	2.64±1.16
10	I've been getting help and advice from other people.	9	17	35	28	2.92±0.96
11	I've been using alcohol or other drugs to help me get through it.	68	9	12	0	1.37±0.71
12	I've been trying to see it in a different light, to make it seem more positive.	28	11	13	37	2.66±1.31
13	I've been criticizing myself.	33	12	10	34	2.51±1.33
14	I've been trying to come up with a strategy about what to do.	13	23	17	36	2.85±1.11
15	I've been getting comfort and understanding from someone.	20	21	35	16	2.46±1.00
16	I've been giving up the attempt to cope.	56	9	13	11	1.76±1.11
17	I've been looking for something good in what is happening.	9	11	19	50	3.24±1.02
18	I've been making jokes about it.	40	10	11	28	2.3±1.33
19	I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	4	13	19	53	3.36±0.9
20	I've been accepting the reality of the fact that it has happened.	10	11	8	60	3.33±1.07
21	I've been expressing my negative feelings.	34	16	17	22	2.3±1.22

Table continued ...						
22	I've been trying to find comfort in my religion or spiritual beliefs.	4	10	14	61	3.48±0.87
23	I've been trying to get advice or help from other people about what to do.	8	20	20	41	3.06±1.03
24	I've been learning to live with it.	6	11	11	61	3.43±0.95
25	I've been thinking hard about what steps to take.	4	7	17	61	3.52±0.83
26	I've been blaming myself for things that happened.	66	3	9	11	1.61±1.09
27	I've been praying or meditating.	4	9	10	66	3.55±0.85
28	I've been making fun of the situation.	31	8	13	37	2.63±1.33

Source: Field Survey 2021

On the other hand, “I have been giving up trying to deal with it” had the lowest score followed by “I have been using alcohol or other drugs to help me get through it” and “I have been refusing to believe that it has happened”. Similar to this study, religion/religious activities were found to be the most followed coping mechanism due to COVID-19 distress in Peru whereas acceptance and mental disengagement were another form of coping in Russia and Kyrgyzstan unlike the finding of this study (Voronin et al., 2020).

Table 4: Internal Consistency Reliability of Brief COPE Scale

Scale	Cronbach's Alpha	Remarks
Brief COPE	0.859	<0.70 or >=0.70

Source: Field Survey 2021

Internal consistency reliability of Brief COPE scale was 0.859, which is greater than 0.70 meaning it is an internally consistent scale in Nepal language used in this study.

Table 5: Descriptive Statistics of Brief COPE Sub-Scales (N=89)

Sub-scale	Mean	SD	Minimum – Maximum Score
Self-distraction	5.57	1.71	2 – 8
Active coping	5.94	1.86	2 – 8
Denial	3.71	1.54	2 – 8
Substance use	2.80	1.47	2 – 8
Emotional support	5.01	1.73	2 – 8
Instrumental support	5.98	1.76	2 – 8
Behavioral Disengagement	2.93	1.31	2 – 8
Venting	4.94	2.00	2 – 8
Positive reframing	5.90	1.93	2 – 8
Planning	6.37	1.62	2 – 8
Humor	4.93	2.08	2 – 8
Acceptance	6.75	1.71	2 – 8
Religion	7.03	1.57	2 – 8
Self-blame	4.11	1.66	2 – 8

Source: Field Survey 2021

Among the Brief COPE sub-scales, religion had the highest score (most preferred coping mechanism) followed by acceptance and planning. The lowest score was found for “substance use” subscale (least preferred coping mechanism) followed by “behavioral disengagement” and “denial” subscale. In Peru, Russia and Kyrgyzstan, the coping responses to COVID-19 were associated with the same four coping domains, that is, problem-focused coping, socially supported coping, avoidance, and emotion-focused coping, which is different from the findings of this study (Voronin et al., 2020). In Finland, the coping strategies adopted by parents included seeking alternatives, self- and other-preservation, seeking social support, avoidance, and positive appraisal of the situation. Results from this Finnish study revealed that all three levels of analysis: macro environmental, relationship and individual, should be taken into account in order to understand coping strategies employed by families with children during the COVID-19 lockdown in Finland, which is different from the finding from this study (Salin et al., 2020).

4.4 COVID-19 Peritraumatic Distress Index

In CPDI descriptive statistics item 5 (I sympathized felt sad to COVID-19 patients and their families) had highest mean of 2.60 followed by item 11 (I was constantly sharing news about COVID-19 to family and friends through social media/phone) with mean of 2.35 and item 8 (I felt insecure and bought a lot of masks, medications, sanitizers, gloves and other home supplies) with mean 2.16. These items show the actions that respondents are doing a lot and suggesting distress.

Table 6: Descriptive statistics of CPDI scale items

SN	Variable	Never	Sometimes	Often	Most of the times	Mean \pm SD
1	Compared to normal times, I felt more nervous and anxious.	56	33	0	0	0.74 \pm 0.97
2	I felt insecure and bought a lot of masks, medications, sanitizers, gloves and other home supplies.	4	69	10	6	2.16 \pm 0.74
3	I couldn't stop myself from imagining my family or I am being infected and feel terrified and anxiety about it.	46	38	4	1	1.03 \pm 1.11
4	I felt helpless no matter what I did.	69	19	1	0	0.46 \pm 0.87
5	I sympathized and felt sad for COVID 19 patients and their families.	9	25	39	16	2.60 \pm 1.11
6	I felt helpless and angry about the people around me, government and media.	27	29	25	8	
7	I was losing faith in the people around me to make good decisions.	79	8	1	1	0.26 \pm 0.76
8	I couldn't stop myself from collecting information about COVID-19 most times in a day even if it's not necessary.	47	30	8	4	1.12 \pm 1.28
9	I usually believed the COVID-19 information from	54	28	3	4	0.91 \pm 1.21

	all sources without any evaluation.					
Table continued ...						
10	I would rather believe the negative news about COVID-19 and be skeptical about the good news.	61	10	8	10	0.94 □ 1.48
11	I was constantly sharing news about COVID-19 to family and friends through social media/phone.	18	26	23	12	2.35 □ 1.40
12	I avoided watching COVID-19 news, since I am too scared of the disease and its outcome.	66	17	4	2	0.61 □ 1.08
13	I was more irritable and had frequent conflicts with my family than before COVID-19 pandemic.	71	18	0	0	0.40 □ 0.81
14	I felt tired and sometimes even exhausted.	65	23	1	0	0.55 □ 0.92
15	Due to feelings of anxiety, my reactions in general were becoming sluggish.	76	13	0	0	0.29 □ 0.71
16	In recent days, I found hard to concentrate.	62	27	0	0	0.61 □ 0.93
17	In recent days, I found it hard to make decisions.	65	24	0	0	0.54 □ 0.89
18	During this COVID-19 period, I often felt dizzy, or had back pain and chest distress.	62	26	0	1	0.63 □ 0.98
19	During this COVID-19 period, I often felt stomach pain, bloating, and other stomach discomfort.	78	10	0	1	0.27 □ 0.75
20	During these days, I felt uncomfortable communicating with others.	55	30	3	1	0.82 □ 1.08
21	I rarely talked to my family during these recent days.	47	35	5	2	1.04 □ 1.17
22	I couldn't sleep well; I	73	15	0	1	0.38 □ 0.85

	always dreamed about myself or my family being infected by COVID-19.					
Table continued ...						
23	In recent days, I had lost my appetite.	76	13	0	0	0.29 □ 0.71
24	In recent days, I had constipation or frequent urination.	81	8	0	0	0.18 □ 0.56
	CPDI Scale					0.88 □ 0.43

Source: Field Survey 2021

On the other hand, item 28 (In recent days, I had constipation or frequent urination) had lowest mean of 0.18 followed by item 7 (I was losing faith in the people around me to make good decisions) with mean of 0.26 and item19 (During this COVID-19 period, I often felt stomach pain, bloating, and other stomach discomfort.) These are the least used coping mechanisms by the study population.

Table 7: CPDI Categories as per the Original Cut-Off Values

Scale	N	Percentage (%)
Normal (<28)	68	76.4
Mild to Moderate CPDI (28-51)	21	23.6
Severe CPDI (>=52)	0	0.00

Source: Field Survey 2021

Peritraumatic distress due to COVID-19 was found to be normal among 3 out of 4 respondents whereas it was mild-to moderate among 1 out of 4 respondents. None of the respondents had severe level of peritraumatic distress in this study. A study done in Lalitpur district, Nepal found nearly 18% with mild/moderate level of peritraumatic distress (Samson & Shah, 2020) whereas a study done in India found 22% respondents with mild psychological distress due to COVID-19, which is similar to this study (Somani et al., 2020).

Table 8: Internal consistency reliability of CPDI scale

Scale	Cronbach's Alpha	Remarks
CPDI	0.802	<0.70 or >=0.70

Source: Field Survey 2021

Internal consistency reliability of CPDI scale was found to be 0.802, which was more than 0.70 suggesting the Nepali version of the tool used in this study as internally consistent. So the results can be interpreted without problem. The original CPDI tool used in China had alpha of 0.95, which was higher than this study (Qiu et al., 2020).

4.5 Relationship Between Peritraumatic Distress and Coping Mechanism

Table 9: Correlation between CPDI scale and Brief COPE sub-scales

Scale	Correlation coefficient	p-value
Self-distraction and CPDI	0.004	0.986
Active coping and CPDI	-0.054	0.617
Denial and CPDI	0.021	0.847
Substance use and CPDI	-0.121	0.259
Emotional support and CPDI	0.136	0.202
Instrumental support and CPDI	0.064	0.553
Behavioral disengagement and CPDI	0.001	0.992
Venting and CPDI	0.129	0.228
Positive reframing and CPDI	-0.053	0.624
Planning and CPDI	-0.120	0.264
Humor and CPDI	0.113	0.292
Acceptance and CPDI	-0.090	0.400
Religion and CPDI	0.182	0.087
Self-blame and CPDI	-0.047	0.661

Source: Field Survey 2021

None of the Brief COPE sub-scales had statistically significant relationship (p -value <0.05) with CPDI scale. However, religion sub-scale and CPDI scale seems to be related at 10% alpha. Similar result was also found in a study one in Peru (Voronin et al., 2020).

4.6 Breakdown Analysis of Peritraumatic Distress

Since the histograms of CPDI scale is tentatively normally distributed (cf. Figure 1), we have used parametric tests i.e., Independent Samples T-test to compare CPDI

score among variables with two categories and One-way Analysis of Variance (ANOVA) to compare CPDI among variables with more than two categories.

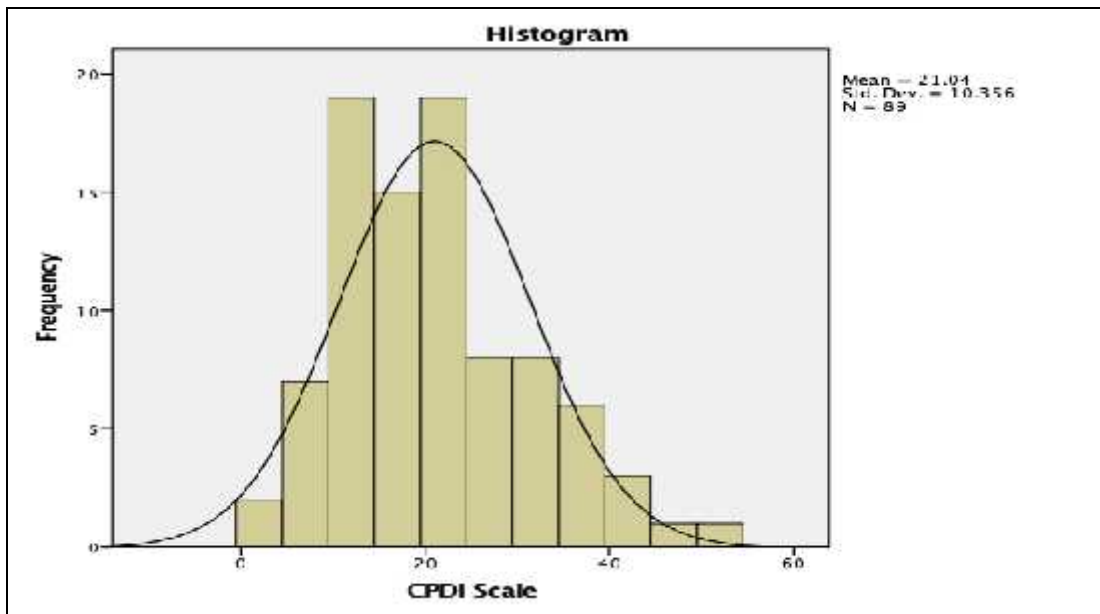


Figure 1: Histogram of CPDI Scale

Results for the background characteristics are shown in Table 10 whereas results for mediating variables are shown in Table 11.

Table 10: Comparison of CPDI scores by background variables

Variable	Mean \pm SD	p-value (T-test or ANOVA)
Age		
20-39	20.19 \pm 9.11	0.611
40-59	21.09 \pm 10.40	
60+	23.90 \pm 14.46	
Sex		
Male	21.67 \pm 8.61	0.589
Female	20.49 \pm 11.77	
Highest education level		
Primary	17.00 \pm 9.47	0.039
Secondary	23.74 \pm 12.37	
Higher Secondary	24.07 \pm 10.37	
Bachelors	16.41 \pm 6.65	
Masters	22.29 \pm 8.86	
Occupation		
Service	19.18 \pm 9.99	0.195
Business	19.93 \pm 9.25	
Homemaker	23.43 \pm 9.44	
Others	27.17 \pm 17.61	
Religion		
Hindu	22.03 \pm 10.31	0.125
Buddhist	15.58 \pm 8.11	
Other	18.67 \pm 15.89	
Caste/ethnicity		
Brahmin	21.67 \pm 10.72	0.447
Chhetri	22.66 \pm 8.69	
Newar (Janjati)	20.65 \pm 13.03	
Other Janjati +	17.50 \pm 9.40	
Other		
Marital Status		
Single	16.67 \pm 9.04	0.372
Married	21.69 \pm 10.16	
Widow/widower	19.67 \pm 14.40	

Source: Field Survey 2021

CPDI score was statistically different for the education of the respondents. Tukey HSD post-hoc test on education categories revealed the difference in CPDI score for primary and secondary, primary and higher secondary, secondary and bachelors and higher secondary and bachelor levels. A study done in Nepal found that respondents with post-secondary education had higher odds of developing distress compared to respondents with secondary education or lower, which is different from this study as bachelor level had lowest distress (Shrestha et al., 2020a).

Table 11: Comparison of CPDI scale by mediating variables

Variable	Mean \pm SD	p-value (T-test or ANOVA)
Mental exercise during COVID-19 (MR)		
No	29.76 \pm 10.71	0.691
Yes	21.73 \pm 9.60	
Physical exercise during COVID-19 (MR)		
No	20.44 \pm 10.65	0.583
Yes	21.66 \pm 10.13	
No exercise during COVID-19 (MR)		
No	21.65 \pm 9.99	0.393
Yes	19.58 \pm 11.24	
Vegetarian diet during COVID-19 (MR)		
No	19.58 \pm 9.99	0.090
Yes	23.41 \pm 10.63	
Non-vegetarian diet during COVID-19 (MR)		
No	20.52 \pm 9.99	0.554
Yes	21.86 \pm 10.99	
Jadibudi during COVID-19 (MR)		
No	22.45 \pm 10.88	0.158
Yes	19.33 \pm 9.52	
Frequency of diet during COVID-19		
Less than usual	28.94 \pm 12.59	

As usual	19.34 ± 8.98	0.003
More than usual	19.25 ± 9.34	
Frequency of sleep during COVID-19		
Less than usual	30.88 ± 11.71	0.000
As usual	18.62 ± 8.69	
More than usual	20.60 ± 9.29	
Infected with COVID-19		
No	19.28 ± 5.8	0.020
Yes	24.69 ± 11.82	
Place of treatment for COVID-19 (N=8)		
Home	21.16 ± 9.72	0.074
Government health facility	30.63 ± 13.91	
Private health facility	34.50 ± 12.02	
Expenses for COVID-19 treatment ⁶		
0	13.50 ± 2.12	0.379
1 – 9,999	23.89 ± 9.19	
10000 – 24,999	29.20 ± 12.35	
25000 – 99,999	19.00 ± 13.23	
100,000 – 499,999	23.00 ± 19.80	
500,000+	34.50 ± 12.02	

Source: Field Survey 2021

Among the mediating variables, frequency of diet, frequency of sleep and COVID-19 infection status had statistically significant results with CPDI score. The Tukey HSD post-hoc test (pairwise comparison) for frequency of diet and sleep during COVID-19 variance showed statistically different CPDI scores for less than usual and usual categories as well as less than usual and more than usual categories. A study done in Italy found slight increased physical activity, turned to famers or organic, purchasing fruits and vegetables and higher adherence to Mediterranean diet, which is different from the finding of this study (Renzo et al., 2020).

4.7 Breakdown Analysis of Coping Mechanisms

Table 12: Comparison of Brief COPE sub-scales by COVID-19 infection status

Brief COPE Sub-scales	Infected with COVID-19?	N	Mean	Std. Deviation	p-value
Self-Distraction	No	60	5.78	1.698	0.096
	Yes	29	5.14	1.684	
Active Coping	No	60	6.07	1.736	0.404
	Yes	29	5.69	2.089	
Denial	No	60	3.43	1.358	0.015
	Yes	29	4.28	1.750	
Substance Use	No	60	2.90	1.591	0.300
	Yes	29	2.59	1.181	
Use of Emotional Support	No	60	4.93	1.736	0.544
	Yes	29	5.17	1.733	
Use Of Instrumental Support	No	60	5.97	1.804	0.934
	Yes	29	6.00	1.690	
Behavioral Disengagement	No	60	2.87	1.200	0.499
	Yes	29	3.07	1.534	
Venting	No	60	5.08	1.916	
	Yes	29	4.66	2.192	0.349
Positive Reframing	No	60	6.02	1.818	0.411
	Yes	29	5.66	2.159	
Planning	No	60	6.62	1.415	0.039
	Yes	29	5.86	1.903	
Humor	No	60	5.15	2.024	0.158
	Yes	29	4.48	2.165	
Acceptance	No	60	6.98	1.546	0.095
	Yes	29	6.28	1.962	
Religion	No	60	7.23	1.395	0.120
	Yes	29	6.62	1.840	
Self-Blame	No	60	4.23	1.598	0.326
	Yes	29	3.86	1.787	

Source: Field Survey 2021

Among the Brief COPE sub-scales, denial and planning subscale scores were statistically different among respondents with or without COVID-19 infection. This is different from the findings from Peru where religious coping was more prevalent (Voronin et al., 2020).

4.8 Breakdown Analysis of Perceived Mental Healthcare Needs

Table 13: Comparison of Mental Healthcare Needs by COVID-19 infection status

Felt Mental Health Needs:	Infected with COVID-19?	N	Mean	Std. Deviation	p-value
Do you think it would be helpful to talk to someone about your worries for the COVID-19 infection?	No	60	0.60	.494	0.902
	Yes	29	0.59	.501	
Do you think it is necessary to get mental health help if someone panics due to COVID-19?	No	60	0.85	.360	0.112
	Yes	29	0.69	.471	
Do you think it would be beneficial if mental health professionals help people in dealing with the current COVID-19 situation?	No	60	0.82	.390	0.324
	Yes	29	0.72	.455	
Will you suggest people for seeking counselling who are highly anxious due to the COVID-19?	No	60	0.93	.252	0.551
	Yes	29	0.90	.310	
Do you think it would be helpful to have online virtual counselling during the current pandemic?	No	60	0.50	.504	0.652
	Yes	29	0.53	.506	

Source: Field Survey 2021

Among the mental healthcare needs items, none of the items were found to be statistically significant. Which is a good sign as mental healthcare need was perceived to be important by both the groups. Similar results were reported from Lalitpur, Nepal (Sampson & Shah, 2020).

CHAPTER V

SUMMARY AND CONCLUSION

5.1 Summary

Majority of the respondents in this study belonged to the 30-59 years of age (86%), male and female were distributed nearly equally. Most of the respondents completed secondary and higher secondary level of education (54%) and were involved in the service and business (61%). Hinduism was followed by 83% and there were 30% Brahmins, 33% Chhetris and 19% Newars. Majority of the respondents (83.1%) were married. Nearly half of the respondents did physical exercise during COVID-19 and nearly 45% consumed “Jadibuti” to protect themselves from the COVID-19 infection. Nearly 60% had usual frequency of diet and around 71% had usual frequency of sleep. Around one-third of the respondents have had COVID-19 infection and majoring of them (66%) treated it at home and they spent between 10,000 and 25,000 rupees.

Brief COPE scale administered in Nepali language was found to be internally consistent as Cronbach’s alpha was 0.86. Among Brief COPE items, “I have been praying or meditating” had the highest mean score (higher coping mechanism) followed by “I have been thinking hard about what steps to take” and “I have been trying to find comfort in my religion or spiritual beliefs”. On the other hand, “I have been giving up trying to deal with it” had the lowest score (lower coping mechanism) followed by “I have been using alcohol or other drugs to help me get through it” and “I have been refusing to believe that it has happened”. Among the Brief COPE subscales, religion had the highest score (most preferred coping mechanism) followed by acceptance and planning. The lowest score was found for “substance use” subscale (least preferred coping mechanism) followed by “behavioral disengagement” and “denial” subscale.

The CPDI scale administered in Nepal language was found to be internally consistent as Cronbach’s alpha was 0.80 giving mild/moderate level of peritraumatic distress of 24%, which is within the 8% to 28% range provided by the 10% margin of error. Among CPDI items, item 5 “I sympathized felt sad to COVID-19 patients and their families” had highest mean of 2.60 followed by item 11 “I was constantly sharing

news about COVID-19 to family and friends through social media/phone” with mean of 2.35 and item 8 “I felt insecure and bought a lot of masks, medications, sanitizers, gloves and other home supplies” with mean 2.16. These items show the actions that respondents are doing a lot and thus suggest distress due to COVID-19. On the other hand, item 28 “In recent days, I had constipation or frequent urination” had lowest mean of 0.18 followed by item 7 “I was losing faith in the people around me to make good decisions” with mean of 0.26 and item 19 “During this COVID-19 period, I often felt stomach pain, bloating, and other stomach discomfort”. These are the least used coping mechanisms by the study population.

The CPDI score and Brief COPE sub-scales were not found to be related statistically. However, religion sub-scale and CPDI score was found to be co-related at 10% level of significance. On the other hand, CPDI score was found to be statistically different for education level of the respondents. The CPDI score was also statistically different for frequency of diet, sleep and COVID-19 infection status of the respondents. Denial and planning sub-scales were statistically different for respondents with or without COVID-19 infections. On the other hand, there was no difference in the five items related to the mental healthcare needs due to COVID-19 among respondents with or without COVID-19 infection.

5.2 Conclusion

Nearly one third of the residents of the study area could have already been infected with the COVID-19 as per the purposive sampling used in the study. Among the COVID-19 infected population, most of the them preferred to follow home isolation for the treatment, which also helped them to get cured with lower expenses. Religion was found to be best predictor of peritraumatic distress as respondents following Buddhism were found to have lower CPDI score compared to the respondents following Hinduism and other religion. Praying and meditation was the most effective coping mechanism followed by the study participants in this study and religion played an important role to cope the distress due to the pandemic.

Peritraumatic distress was found to be severe in 0%, mild/moderate level in 24% and none in 76% of the surveyed population. Yet, it was significantly different for education level of the respondents, the lowest distress was observed for respondents

with bachelor level of education followed by primary level education whereas the highest was observed for respondents with higher secondary, secondary and master's level. COVID-19 peritraumatic distress was higher for respondents with less than usual frequency of diet and sleep and those who were infected with COVID-19.

Finally, respondents with COVID-19 infection reported higher denial and lower planning scores indicating less effective coping mechanism strategy than those who were not infected with COVID-19. The mental healthcare needs score for COVID-19 was lower for the respondents with COVID-19 infection compared to those without the infection but the results were not statistically significant.

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APPENDIX I:

नयाँ कोरोना भाइरस (कोभिड-१९) बाट उत्प्रेरित मानसिक अवस्थासम्बन्धी प्रश्नावली

नमस्ते ! मेरो नाम मल्लिका भण्डारी हो । म केन्द्रिय समाजशास्त्र/मानवशास्त्र बिभाग (Central Department of Sociology/Antropology) त्रिभुवनबिस्वविद्यालय, किर्तिपुरमा समाज शास्त्रबिषयको स्नातकोत्तरतह (MA in Sociology) मा अध्ययनरत छु। हाल उक्त बिषयको पूर्णताकोलागी नयाँ कोरोना भाइरस (कोभिड-१९) सम्बन्धीशोधपत्रमा काम गर्दछु। मेरो शोधपत्रमा कोभिड-१९ शुरुभए देखीहालसम्मको अर्वाधमा यहाँले कस्ता-कस्ता अवस्थाहरुको सामना गर्नु भयोरउक्तअवस्थाहरुलाई कसरानिराकरण गर्न प्रयासहरु गर्नु भयोभन्नेबारेमाछ । साथै, कोभिड १९ मादेखिएकामानसिक अवस्थाहरुलाई कसरा निराकरण गर्न सकिन्छभन्ने बारेमापनि यहाँको धारणाखोजेकोछु। यो शोधपत्रको लागि यिनै बिषयहरु समेटेर एउटा प्रश्नावली तयार पारेको छु। यी प्रश्नावलीहरुको उत्तर दिदाँ आफ्नो नाम र परिचय दिनुपदन र तपाईंले दिनुभएको सम्पूर्ण तथ्याकंहरु गोप्यहुनेछ र यो शोधपत्रको लागि मात्र प्रयोग गर्नछु।

अब यो प्रश्नावली शुरु गर्न अनुमती चाहन्छु:

प्र : () न वि ब्यक्ती :

. यो शोधपत्रको प्रश्नावलीमा भाग लिन इच्छुक छु । प्रश्न

. यो शोधपत्रको प्रश्नावलीमा भाग लिन इच्छुक छैन ।

प्रश्नावलीसमाप्तभयो,धन्यवाद !

प्रश्न : कृपया तल दिइएकासबै प्रश्नहरूको जवाफ ...

८ ()

चिन्ह दिनुहोस ।

खण्ड-क (Background Information)

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.	वि ?	() वि () रु
.	तपाईंको शैक्षिकस्तर कति हो ?	() प्र वि - क्ष () वि - क्ष () च . वि . - क्ष (10+2 or equivalent) () स् (Bachelor) () स् त (Masters) () वि द ा (PhD) () न
.	मुख्य ?	(क) नोकरी /जागिर (service) () ट (Business) () (Homemaker) () न
.	?	() वि न () द्व () वि () स् () () न
.	/ ?	(क) ब्रह्मिण (ख) क्षेत्री () ()

		<input type="checkbox"/> न <input type="checkbox"/> ि <input type="checkbox"/> न
	स्थिति के हो ?	(क) अविवाहित (Single) <input type="checkbox"/> ि ि (Currently Married) <input type="checkbox"/> ि (Separated) <input type="checkbox"/> (Divorced) (ड) विधुवा/ विधुर(Widow/widower) <input type="checkbox"/> न

खण्ड-ख (COVID-19 related practices)

	कस्तो खाले व्यायाम गर्नु भयो ? (बहुउत्तर - Multiple Response)	<input type="checkbox"/> ि (, ष ि) () शारीरिक (दौडनु, हिडनु आदि) (ग) व्यायाम गरिन/गदिन
	शुरुभएदेखी कस्तो खालको ? (बहुउत्तर - Multiple Response)	<input type="checkbox"/> ि <input type="checkbox"/> न ि <input type="checkbox"/> , जडिबुटी (गुर्जा) ...
	खानाको मात्रा कस्तो भयो ?	<input type="checkbox"/> ि न <input type="checkbox"/> ि स <input type="checkbox"/> ि न
	तपाईंको निद्राको अवस्था कस्तो	<input type="checkbox"/> ि न <input type="checkbox"/> ि स

	f ?	() f g
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खण्ड-ग (COVID-19 Peritraumatic Distress Index)

तलका प्रश्नहरूमा कोभिड- रु रु रु रु रु रु ()

रि न् :

क्र.	रि	रि रि	रि	रि	रि
.	सामान्य अवस्थामा भन्दा, मज्यादा आत्तिने वा चिन्ता लिने गदछु ।				
.	फू असुरक्षित भएको महसुस हुँदा धेरै माक्स, रि , ग्लोब्स तथा घरेलु सामान किन्ने गदछु ।				
.	फ रि रि - लागेको सोच रोकन सकिँदैन र उक्त कुराले गदाडराएको रि				
.	मैले जे गरे पनि आफूलाई असहाय महसुस गदछु ।				
.	रि - को विरामी र उसको परिवारलाई सहानुभूति प्रकट गदछु र दुःखः महसुस गदछु ।				
.	म मेरा वरिपरिका मानिस (परिवार- रि रि त्र), तथा मिडिया प्रति असहाय महसुस गछु र रोश प्रकट				
.	मैले सहानुभूति नपाएकाले मेरा वरिपरिका मानिसको रि रि				

	<p>। - को बारेमा जानकारी लिनबाट आफुलाई रोक्न सकिरहेको छैन, रु नभयको अवस्थामा पर्नसकेको छैन ।</p>				
	<p>सम्बन्धी सबै प्रकारका श्रोतबाट प्राप्त सूचनाहरू मुल्यांकन नै नगरि विश्वास गदछु ।</p>				
	<p>मबरू कोभिड- त विश्वास गछु र सकारात्मक सूचनाको बारेमा सन्देह</p>				
	<p>। - । रु न / ि</p>				
	<p>। - को समाचार हेर्दा दिन किन भने म स ।</p>				
	<p>। - महामारी अघि भन्दा अहिले म निकै नै झुकिने भएको छु र । । - ।</p>				
	<p>। । । । न</p>				
	<p>तै , प्रि रु स</p>				
	<p>न केन्द्रित गर्न गाह्रो भएको</p>				
	<p>आजकल मलाई निणय गर्न गाह्रो भएको पाएको छु</p>				
	<p>। - , प्रायः जसो मलाई रिङ्गटा</p>				

	व , ख ण। नृ				
	ि - , प्र : न र नृ				
	रिदिनहरूमा मलाई अरुसँग कुरा गन अपथ्यारो नृ				
	हालकादिनहरूमामैलेआफ्नोपरिवारसँगबिरलैकुरागरेको				
	म राम्रोसँग निदाउन सकिदिन; ि । ि ख				
	फ				
	र ि ण। नृ				

.	। से प्र ।				
.	स स न न शि ।				
.	अप्रिय क्त रु ।				
.	अरुब्यक्तिहरु स , रु, शि , न्यजनहरुबाट				
.	क शि शि द शि प्र ।				
.	स रु हसे ; । से त				
.	आफ आफ्नै ;				
.	। शि प्र ;				
.	न्त । प्रप ।				
.	/ स प्र शि वे				
.	, त्यस्को मं क्ष ज				

.	परिस्थितिको ह ;				
.	फ स ए ड न ; स , टेलिभिजनहेन, न , त लि ;				
.	फ से र् वास्तविकता स्विकाछु।				
.	त रु ड क				
.	फ धार्मिक आध्यत्मिक बिश्वासमा न ज				
.	न ब्यक्तिहरूसँग नि				
.	फ स रु र् क				
.	ि ड मं च				
.	त्यस्को नि				
.	प्र ; ; ए ;				
.	फ परिस्थितिको स प्र ;				

खण्ड-ड (Mental Health Needs for COVID-19)

तलका प्रश्नहरूमा कोभिड-१९ सम्बन्धी कत ()

निम्न :

क्र.	प्रश्न	न	
.	कोभिड-१९ तपाईंलाई कोभिड-१९ लागेको चिन्ताको बारेमा कुरागदा सहयोग हुन्छ होला?		
.	के तपाईंको विचारमा कोही ब्यक्ती कोभिड-१९ तपाईंको स्वास्थ्य मन्त्रालयमा जसो न ?		
.	कोभिड-१९ ब्यक्तीलाई कोभिड-१९ तपाईंको स्वास्थ्य मन्त्रालयमा जसो प्र ?		
.	कोभिड-१९ ब्यक्तीहरूलाई परामश ?		
.	कोभिड-१९ तपाईंको स्वास्थ्य मन्त्रालयमा जसो ?		

नत :

.	कोभिड-१९ तपाईंको स्वास्थ्य मन्त्रालयमा जसो ?	प्रश्नावली समाप्त भयो, धन्यवाद !
.	कोभिड-१९ तपाईंको स्वास्थ्य मन्त्रालयमा जसो ?	-प्रश्न
.	कोभिड-१९ तपाईंको स्वास्थ्य मन्त्रालयमा जसो ?	() () तपाईंको स्वास्थ्य मन्त्रालयमा जसो ? () तपाईंको स्वास्थ्य मन्त्रालयमा जसो ?

		() न ()
.	। , ; व (न) ? (रु.)

***** तपाईंकोअमूल्य समय र बहुमूल्य उत्तरहरूको लागि धेरैधेरै धन्यवाद! *****