

Psychological Effects of the COVID-19-Induced Lockdown 2020 among Educated Adults of Nepal

Pralhad Adhikari¹

Abstract: Using diary method, a qualitative research was conducted to know about the feelings, actions and mental processes of the adults during lockdown induced by COVID-19 in 2020. The final dataset had 1800 entries from 30 participants for 20 days during May and June months of 2020. The participants were made write diary in MS Word file with a 'change tracker' on. The sampling was non-probability, convenient. Vivo 10 was used to analyze the data. Data have been collected phenomenologically and have been analyzed by content analysis. Consequently, three themes in emotions were found out: positive emotions, negative emotions and mood swing. Behaviors had three themes: adaptation, entertainment and compulsive behaviors. Mental processes had three themes: attribution, acceptance and cognition. The conclusion is that people have started to adapt to new norms created by the lockdown of COVID-19. Still, they are afraid/anxious about start and spread of disease as they have an obsession. In response, they show compulsive behaviors like seeking news. They think that government is responsible for the proper handling of crisis. They are angry at people for being careless when they often break the lockdown themselves.

Keywords: Corona virus; quarantine; stress; obsession; adaptation; anxiety

Introduction

Corona virus disease 2019 (in short, COVID-19, also known as corona virus or novel corona virus) started from China in December 2019 and has spread globally now killing hundreds of thousand people worldwide. Experts are saying that it is a formidable threat to human existence (Otu et al., 2020). Many governments in the world announced lockdown. International flights were banned all over the world. In Nepal also, there is lockdown after March 2020. People have been stranded to where they were. So, months of confinement can give rise to mental health problems, experts like Horesh & Brown (2020) are predicting. This study was conducted after

¹ Assistant Professor, Department of Psychology and Philosophy TriChandra Campus, Kathmandu, Address: Kathmandu 44605, Nepal, Corresponding author: pralhad.adhikari@trc.tu.edu.np.

two months passed from the date lockdown was announced. It has tried to explore the psychological effects of lockdown caused by the global pandemic of COVID-19 in Nepal.

In China, corona virus disease 2019 (COVID-19) pandemic raised the psychological distresses like depression, anxiety and panic disorders due to unprecedented strict quarantine, physical/social distancing and isolation (Qiu et al., 2020). In the same country, almost one-fourth college students experienced mild to severe anxiety (Cao et al., 2020) and 27.1% people had depression (Liu et al., 2020). An Online Ecological Recognition (OER) showed that life satisfaction were found to decrease while sensitivity to social risks increased in China (Li et al., 2020). The negative emotions increased and the positive emotions decreased. Negative emotions mostly included indignation, anxiety and depression. Not only in China, spread of COVID-19 all over the world has given rise to mental health problems such as stress, insomnia, depression, anxiety, denial, anger, fear (Torales et al., 2020) and trauma in personal and group levels (Otu et al., 2020) globally . For example, New Zealanders reported higher distress (Sibley et al., 2020). Since the medicine or cure for this disease has not been found out, its mental impact is likely to be greater than that of natural disasters, wars or mass conflicts (Fiorillo & Gorwood, 2020). It is a new stressor. Besides, measures taken to prevent possible spread of the disease like quarantine, social distancing, and self-isolation are predicted to cause negative effects on mental health.

Some groups are more vulnerable to mental health problems than others. For example, women have to bear more responsibilities when all family members stay at home in androcentric societies. Similarly health workers are on duty and in some cases made work overtime. So, they are more prone to mental health problems (Greenberg et al., 2020) in addition to risk of contracting disease and moral injury. Increased worries and apprehensions about acquiring the disease among the public is common (Roy et al., 2020). Children will be affected as social disruption will first impact the family and caregivers directly related to them (Prime et al., 2020).

For the general population, experts advise to limit the sources of stress like unnecessary news, to relate to relatives and friends by means of technology and to utilize isolation for creative deeds. Besides, general people are suggested to maintain regular routine like by having regular sleep-wake rhythms (Fiorillo & Gorwood, 2020). Repeated media exposure to community crisis can increase anxiety and stress. Moreover, it can also lead to misplace help-seeking and health-protective behaviors

(Garfin et al., 2020).

In New Zealand, people trusted government more (Sibley et al., 2020). They also trusted science, politicians and police while their patriotism increased. That is the case of a country where pandemic has been best managed. However, trust toward the government and institutions in other countries may have declined in other countries, especially the developing and underdeveloped ones as the ‘invisible killer’ continues to terrorize the world.

Psychology is defined as the science of affect, behaviors, and cognition (Adhikari, 2020). This study is guided by this framework to study emotions, actions and cognitions participants showed in response to lockdown during pandemic of COVID-19. Even though people often show distress in times of difficulty, they also show signs of recovery by the means of resilience, social connectedness and vulnerability (Sibley et al., 2020).

A conceptual framework for this is given below. Since Nepal is an underdeveloped country, the affects, behaviors and cognitions are estimated to be mostly negative. People display anxiety, depression anger and fear as moods and emotions. They also may get irritated. Domestic violence might grow and people are likely to express anger through social media like Facebook and YouTube, especially targeting the government. In thought, they may imagine end of everything, destruction and collapse of the social systems. They probably believe that they are victims of world politics. For example, people solidly believe that a country contrived virus as biological weapon to dominate other countries. They also are likely to harbor the fear (in thoughts) of the possible starvation in near future.

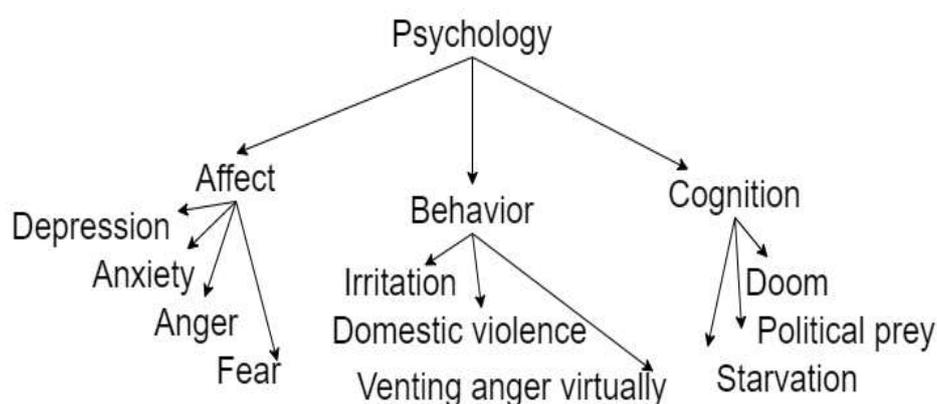


Figure 1. Conceptual Framework for the Study

There are not many researches regarding COVID-19 done from holistic psychological perspective. The qualitative researches are almost nil. In this context, this qualitative research can provide exploratory insight about the psychological conditions of adults and their psychological reactions with the focus of people stranded at their homes. It might be a basis for planning psychological intervention if necessary.

Methods

Data were collected using diary method from 30 adults pursuing Master's degree at a college in Kathmandu using a convenient sample. Initially, 45 adults were approached but 15 participants chose not to submit the final diary. They had to maintain diary/journal for 20 days in three dimensions- emotions, behaviors and actions in relation to COVID-19 and related lockdown. So, final dataset had total of 1800 diary entries. The participants wrote the diary in MS Word in their computers or smartphones in the given format and submitted by email. The 'tracking changes' feature in MS Word was active to make sure that participants maintained the diary every day. The data were analyzed from NVivo 10. This research abides by most of American Psychological Association (APA's) ethical guidelines for research like debriefing, privacy, confidentiality and non-maleficence.

Participants were from different background like nursing, software analysis, corporate service, physician, specialist, management, teaching, marketing, research, activist and student. Nine of them reported that they were living in same place where they were born during lockdown. Twelve of them reported that they lived in places different than they were born. Rest of them did not report on this dimension. The participants were born in various districts (like Jhapa, Lalitpur and Parbat) and were living in various districts (like Bhaktapur, Sarlahi, Bara and Arghakhachi) during lockdown. The participants' age ranged from 22 to 43. Sixteen participants were female and the rest were male. All the participants had at least 15 years of formal education and were above 18 years of age and below 60. That is why, they have been called educated adults.

Results

The findings have been divided into three overarching themes (which were preset theoretical ideas). Theory-dependency is a feature of content analysis (Mayring, 2004).

Table 1. Major Themes that Emerged as Emotion, Cognition and Conation in the Research

Overarching themes	Themes	Sub-themes
Emotions	Negative emotions	Fear From immediate events Worry about others Sadness Stress Missing the normal times Anger Boredom Confusion and nervousness
	Positive emotions	Good mood Happiness Hopefulness Relief From immediate actions From creative acts
	Rollercoaster	
Mental processes	Cognition	Obsession Thinking coping strategies Philosophizing Knowing self Distraction
	Acceptance	Uncertainty and doom New norms Positive aspects Difficulty common to all Distraction from lockdown
	Attribution	Concerns with government Careless people
Behaviors	Adaptation	Career works Breaking lockdown Neglect Time with family Household chores Physical exercise
	Entertainment	Reading Playing games Helping others
	Compulsive behaviors	Seeking information Interaction about disease

Behaviors

Behaviors are actions or conations. In lockdown, the educated adults were confined to own homes mostly. They learned to adapt to the new situations. They were busy with career works and household chores. Since the participants were the professionals and students, they engaged mostly in career works by quickly adapting to internet technologies like Zoom and Google Classroom for online teaching/learning. They were also compulsively seeking information about the disease from online sources and interactions with friends or relatives. Moreover, they spent a lot of time in recreational activities like online games and hobbies. The themes in this psychological category are given below:

Compulsive Behaviors

Educated adults were frequently browsing internet, watching news or interacting with family members to get the update of the number of the infected and the dead. Participants also were doing compulsive behaviors as they were obsessed with the threat of contracting disease. Two subthemes are seen: seeking information from mass media and interacting with people for information.

“I went to Koteshwor to withdraw money from ATM. I thought corona virus may be attached around the ATM machine. I was upset and washed hands 4 times before entering into the house.” (P16, Male, 25, Student, Kathmandu)

“I talked with my brother in Europe about the impact of Covid-19. I asked what the situation there was ...” (P29, Male, 36, Businessman, Parbat)”

“I thought ‘can the corona virus disease spread through food? If virus is attached in biscuits & chocolate, maybe I will also affected by corona’. I was worried and washed biscuits & chocolate with water.” (P14, Female, Student, Sarlahi)

“I read coronavirus update in world-o-meter. Worldwide confirmed cases were 5.4 million and confirmed worldwide death was 346000 plus” (P09, Male, 40, Manager, Kavre)

Adaptation

People panicked initially but they said that they were adapting to the new situation. They had been preparing for the normal times like by increasing skills for career. They also got habituated to do things related to job and college (career) from home using internet technology like Zoom and Google Meet. They also neglected or considered being homebound as normal being indifferent to what was happening. They also began exercising to increase immunity (against COVID-19!) and adopt a good lifestyle. They got involved in daily household chores. Participants engaged in cooking new or craved dishes and enjoyed with family. They were happy to have quality time with family after long. Many adults broke lockdown and partied or went to visit kith-and-kin. The subthemes identified are career works, breaking lockdown, neglect (or ignoring), time with family, household chores and physical exercise.

“I woke up early today. As I was skipping my workout since few days, I started my day working out. And after that same routine as always: work at daytime and classes in evening.” (P18, Female, 24, Assistant Officer, Kathmandu).

“I am helping my parents in household work and learning so many things by studying 1,2 books”(P02, Female, 24, Teacher, Lalitpur).

“I gathered all the ingredients and started making ice cream. Now, this was the first time I tried something like this and I know how difficult it is to get it right.” (P10, Female, 23, Researcher, Kathmandu).

“I spent a lot of time with my daughter. I played different games with her.”(P29, Male, 36, Businessman, Parbat).

“I spent my day among people I haven't met for a long time. The environment was wonderful as I had missed this company. As usual, Corona creeps in the talks wherever I go and whoever I meet.” (P30, Male, 23, Developer, Jhapa).

“Today was the off day and first half of the day, I caught up with the pending assignments and homework” (P05, Male, 28, Doctor, Lalitpur).

“I participated on webinar focused on the role of nurses during Covid-19. More than 1000 nurses participated and shared their experience. All were motivated to become a part of patient care” (P15, Female, 43, Nurse, Morang).

Entertainment

Educated adults played online and indoor games, read books and fulfilled hobbies like creating tunes in guitar. They did something creative like painting or writing an article. They helped others and went near to nature. In doing all these, they got happiness and relief because they were distracted from the threat of corona virus and its obsession. Some participants took digital holiday and just did nothing for fun and peace of mind. The major themes are reading book, playing game and helping others.

“I played PUBG all day. This game is so addictive. I reached the platinum tier.”
(P23, Female, 22, Officer, Kathmandu).

“I cleaned my rooms, made momo with family, read for a few hours, and watched Netflix documentaries. The Brothers Karamazov is a good novel by Fyodor Dostoyevsky.”(P03, Male, 35, Doctor, Bhaktapur).

“After getting up, I got ready as today I was going for volunteering service to feed the homeless. This meant a lot to me as I’ve always been interested in volunteering.”
(P10, Female, 23, Researcher, Kathmandu).

Mental Processes

During lockdown, people had obsession of spread of COVID-19 and they checked news frequently daily. People also philosophized or theorized about life and world. They were spiritual and they were praying. They were curious about when the pandemic would end and what government was doing to handle the crisis, in the age of uncertainty. They accepted the fact that there is new normal. So, they have accepted that rules, habits and strategies for working and living will be new too. They thought that there are positive sides to the lockdown. People attributed governmental inadequacy to the wide spread of disease and they also blamed people’s carelessness. People also devised coping strategies. They philosophized about life or the world. They theorized that life is full of ups and downs. This ‘immobility period’ was a chance for people to know their self-better. There are three broad themes in this psychological category.

Acceptance

The major subthemes on this psychological category are thinking about uncertainty and doom, believing in norm change, pondering about positive aspect of confinement and distraction from disease-consciousness. Acceptance means that people had stopped denying and in the mental level, started to concede its reality like difficulties ensuing. Lockdown and hence confinement was a new normal. They accepted that times were uncertain as the old systems had collapsed, at least temporarily. Hence, they were puzzled about future. Participants believed that all people were facing difficulties. However, they thought that lockdown brought positive effects too. For example, people were getting vacation and opportunities to do creative tasks.

Are virtual classes actually alternative to physical classrooms? Will our classmates without internet facilities in rural areas of country be able to catch up the course? Wouldn't it be unfair for them to carry on the classes? (P23, Female, 22, Officer, Kathmandu).

"... how will the coming days be, will our life have a new norm like wearing masks, gloves as an obligation as we move with our daily lives." (P27, Female, Nurse, 27, Bhaktapur).

"Today I learned to make new food. I thought (this) lockdown teaches us many things." (P16, Male, Student, Kathmandu).

I thought due to lockdown, suicide rate is increasing (P09, Male, 40, Manager, Kavre).

"I have been disengaging from news and that certainly contributed to keep my sanity." (P05, Male, 28, Doctor, Bhaktapur).

Attribution

Participants wanted to attribute the spread to mismanagement of the pandemic. They mostly complained about government's inadequacy from federal to local levels. They also offered suggestions for government to prevent further spread. Moreover, the educated adults also blamed carelessness of people. They are angry because of government and careless people who defied lockdown orders.

"I came to know that there is still corruption, and government is not serious in maintaining the health of people at any cost." (P12, Female, 23, Nurse, Jhapa).

“... number of cases is increasing day by day. Still our testing is done in a slow pace. Speed should be increased.”(P11, Male, 24, Student, Kavre).

“I went for a walk to Ringroad. I saw more vehicles and people than last 62 days. Why are people becoming careless or is this a frustration of being locked down for a long time?”(P07, Male, 35, Supplier, Lalitpur).

Cognition

Participants were really obsessed about corona virus disease. They woke up in the morning with low mood. When offline, for example when they had gone away from home, they were curious if the mortality and morbidity increased. People contemplated about the life and the world. They made theories and philosophized about various things from fate of this country to the animal cruelty. They were curious about future overall and management of emigrants returned from abroad in quarantine. This period of lockdown became a chance for them to know themselves better. It was a test of patience. They discovered the unknown sides of their self. They imagined several tactics for coping with the crisis.

“I had a little headache ... I talked to my friends about my headache. I thought if it is a symptom of corona virus.” (P16, Male, 25, Student, Kathmandu).

“Today was filled with happiness and joy as I could help those people in need. The amount of satisfaction that we can get after helping others is definitely irreplaceable.” (P10, Female, 23, Researcher, Kathmandu).

“The more I separate from the digitalized world such as the internet, television and phone calls, I start to find myself.”(P03, Male, 35, Doctor, Bhaktapur).

“I thought, Yoga Aasan, Pranayama and meditation will help fight corona virus.” (P29, Male, 36, Businessman, Parbat).

Emotions

The counts of major emotions reported by participants have been presented in the bar diagram. Some bars represent counts of related emotions.

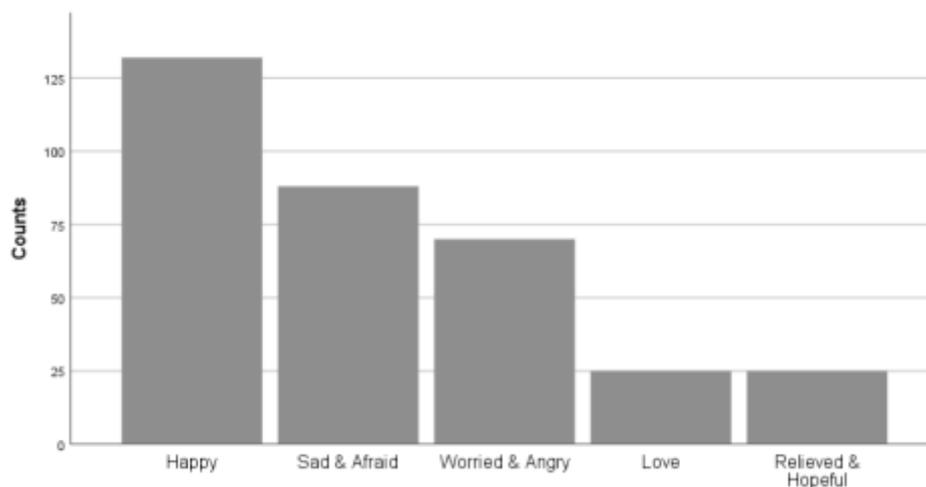


Figure 2. Emotions Reported by Participants. These are Based on Search of Literal Words (Manifest Content) by NVivo 10

The affects reported by educated adults were positive and negative. They also got the mood swings. Like a rollercoaster, they were happy in the morning but they found themselves sad, fearful or anxious before bed or vice versa. This broad psychological category had three major themes.

Positive Emotions

Many educated adults were professionals employed in Kathmandu. The rest were the full-time students who could afford higher education. Most of them reported positive mood. They were hopeful. The participants got happiness from family or friends who they met virtually (i.e. via Facebook, Viber) or in person. They felt relief after some moments of stress or relaxed after doing entertaining activities. They extracted high mood by being creative.

“I was so excited that I cooked something new adding extra skill in my cooking menu.”(P09, Male, 40, Manager, Kavre)

“The day was wonderful and with loads of fun. I enjoyed my whole day and discussed about the newly announced budget of our country at the evening time with some senior person in my village.”(P11, Male, 24, Student, Kavre)

“I was playing with my daughter. I thought this is the best part of my life- being with family.”(P09, Male, 40, Manager, Kathmandu)

I felt a little happier because online classes are running, during lockdown. (P29, Male, 36, Businessman, Parbat)

"I learnt few things about guitar, improvised my guitar skills and did a virtual jamming with my old friends... I had a blissful day today (P10, Female, 23, Researcher, Kathmandu)

"... the painting is surely my cup of tea . It made me feel good about everything." (P10, Female, 23, Researcher, Kathmandu)

"I woke up and planned to start my day with mediation which I haven't done in my entire life. I even don't know how to mediate. So, looked on YouTube and try to do mediation... I felt joy" (P26, Male, 32, Teacher, Nuwakot)

Negative Emotions

Mostly occurring negative emotion was fear followed by anxiety. The main factor to blame was the unstoppable spread of COVID-19 in Nepal. People also got angry or sad by immediate events nationally and internationally. The events included the encroachment of Nepal's land by India, plane crash in Pakistan, lynching of a person of color by an American policeman, death of a pregnant elephant in India (because of a person who fed her pineapple filled with firecrackers), apolitical protest in cities of Nepal warning government, death of six teenagers in Rukum, and several others. Participants also showed worries about the underprivileged people of the nation, those in government's quarantine and the poor people in addition to own relatives and workmates. They were both sad and angry for subpar handling of crisis. Many participants, especially medical professionals, felt stress because of heavy duty and fear of contracting disease. They missed normal times. They also got confused, nervous and bored.

"I got a video message which said, Corona has been seen in Bhaktapur. That message was from my girlfriend. The moment I got this message, I was very much scared and didn't know what to do or what to say. I became blank for a moment" (P01, Male, 24, Student, Syangja).

"After tuning into the news channel, I learned about a very inhuman incident related to caste discrimination in Rukum. The incident resulted in death of 6 Dalit men because of a love affair" (P10, Female, 23, Researcher, Kathmandu).

"I feel angry when I hear the prime minister talk like it's not a big deal. Everyone

has lost their source of income ... since the last 2 months. People aren't getting paid; they can't afford food and the government is doing nothing to provide relief” (P10, Female, 23, Researcher, Kathmandu).

The news of suicide made me feel sad ... Suicide will increase if awareness campaign is not done” (P11, Male, 24, Student, Kavre).

Work was hectic today. We prepared a meal in the hospital. That means we got to have a warm meal. I came back home and just sank in my bed (P05, Male, 28, Doctor, Bhaktapur).

“After so long I missed my workplace today. I am so eager to catch up again” (P18, Female, Assistant officer, Kathmandu).

I felt relaxed, a feeling of accomplishment was also there. Yet the boredom kept coming from time to time (P03, Male, 35, Doctor, Bhaktapur).

I was confused how the exams can be scheduled in such scenarios (P27, Female, 27, Nurse, Bhaktapur)

Rollercoaster

People had mood swings most of the days initially. They had good mood in the morning but became anxious, angry or sad in the evening. They woke up sad in the morning, lightened up on day and again were in low mood before bed. Corona, related lockdown and sense of confinement caused emotional rollercoaster.

“Emotions were happiness and cheerfulness even though sometimes I felt sad and gloomy. Thinking about people and things happening here around made me feel so low.” (P30, Male, 23, Developer, Jhapa)

“I felt emotionally traumatized after the shocking news. I then diverted my mind with the help of music and felt eternal peace.” (P10, Female 23, Researcher, Kathmandu)

Discussion

This study explored the psychological responses shown by educated adults of Nepal during the lockdown induced by COVID-19. Government had imposed strict lockdown for about three months. Relatively looser lockdown orders are still there during the time of drafting of this report (2020 June 29) and its revision (2020 August

26). People have mixed emotions. Because of participants' status, they have not been directly affected by the disease. However, state of uncertainty and confinement have had negative effects like boredom, anxiety and stress. Since quarantine and social distancing are against human nature of gregariousness, people tend to develop sadness, anxiety, loneliness and anger (Touyz et al., 2020). However, they have adapted to the new situation. It is similar to findings in an Italian study. The study among adolescents showed that they were able to impressively cope with the uncertain condition brought about by COVID-19 pandemic (Buzzi et al., 2020). People have enjoyed the free time like vacation getting near to family members doing indoor activities like cooking, playing online games, visiting friends and relatives, and doing creative things (like music, painting, writing). People entertained themselves by playing games, reading books and helping others. As psychologists say this pandemic has positive sides like personal growth and family cohesion (Fegert et al., 2020), this research has also showed that educated adults used this leisurely time for enhancing their skills and starting work-out (like *Yoga*). They also got connected to their family members intimately. Experts forecasted that lockdown could lower physical activity and higher sedentary behaviors (Margaritis et al., 2020). If that would be the case, obesity and other psychological problems would increase. However, some educated adults in this study have said that they have started to do physical exercise. In Italy, people's lifestyle and eating habits change was noticed. For example, 48.6% people perceived weight gain (Di-Renzo et al., 2020). The finding in that and this studies are similar. People are resilient and at least developing resilience. Some groups like women, children and certain professionals like healthcare workers may be at more risk at this time. Some experts (Heath et al., 2020) suggest that healthcare workers need to practice self-care to cope with distress. Self-care practices include exercise, good sleep hygiene and building social support.

Participants also have shown worries about others like poor people, emigrants returning to homeland and put in quarantine, and marginalized communities. Some pundits have predicted that many women and children in Nepal will have to suffer malnutrition increasing chance for morbidity and mortality due to the disease (Panthi et al., 2020), participants also showed worries for the underprivileged segments of society. They are angry towards governmental subpar handling of the crisis, and carelessness of people who break lockdown orders. There was a cognitive dissonance though. They defied the orders themselves sometimes. There will be consequences of the pandemic (including the lockdown) in several fronts like social, economic, cultural and psychological. The real psychological impact (in the form of

mental health effects) of the pandemic is yet to appear. This research dealt with educated adults' lockdown experiences psychologically. This research has some strengths. When there are almost no qualitative research from psychological perspective, it has explored some aspects of COVID-19 pandemic from a segment of society. This study also marks a new era in research in Nepal. Data collection and analysis were all done digitally. However, the segment chosen as sample is not representative of whole of Nepal. Participants are relatively more privileged group who had the capacity to submit digitally created diary via email. Many adults of this age cohort do not have resources to afford to go to college or consume internet. Most of them (25 of 30) were employed somewhere. So, the findings of this research does not speak of whole adults' cohort in Nepal. The other limitations are the limitations of diary method. It was not possible to monitor quality of diary entries on a daily basis. Some participants entered irrelevant details. Molecular approach is used to collect data. People were let enter data in three units of psychology. The participants' responses allude that the findings can have different meanings if molar approach is used.

In the light of findings come from this research, initially proposed conceptual framework needs a change. People are found to be more resilient than imagined. They show more positive emotional qualities than expected.

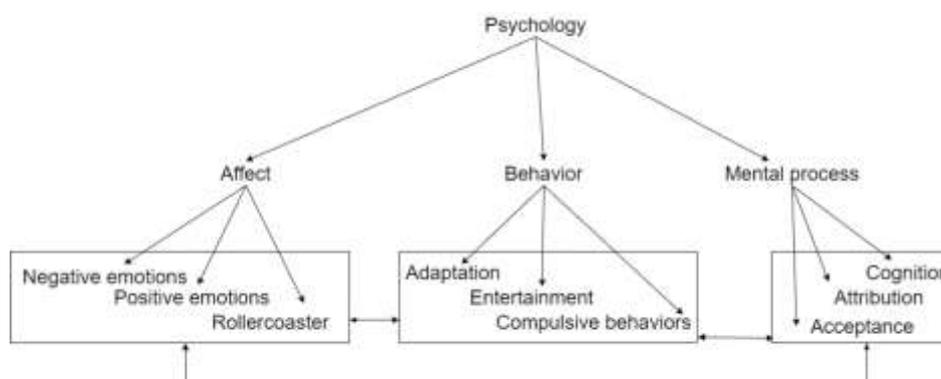


Figure 3. Model of Psychological Response to Lockdown Induced by COVID-19 Pandemic Shown by Educated Adults

The future researches can be used to explore or inquire into specific aspects of psychology more deeply. This research has taken three broad dimensions of psychology as preset overarching themes. This research is mostly concerned with manifest content. To discover the latent content, same dataset can be subjected to thematic analysis. In the age cohort considered in this study, diversity can be

considered in future inquiries. For example, how did farmers react to it psychologically would be an interesting research problem. The mental health effects can be investigated using psychological tools or other assessment methods in other quantitative researches.

References

- Adhikari, P. (2020). *Foundation of Psychology*. Asmita Books.
- Buzzi, C.; Tucci, M.; Ciprandi, R.; Brambilla, I.; Caimmi, S.; Ciprandi, G. & Marseglia, G. L. (2020). The psycho-social effects of COVID-19 on Italian adolescents' attitudes and behaviors. *Italian Journal of Pediatrics*, 46(1), p. 69. <https://doi.org/10.1186/s13052-020-00833-4>.
- Cao, W.; Fang, Z.; Hou, G.; Han, M.; Xu, X.; Dong, J. & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research*, 287, p. 112934. <https://doi.org/10.1016/j.psychres.2020.112934>.
- Di-Renzo, L.; Gualtieri, P.; Pivari, F.; Soldati, L.; Attinà, A.; Cinelli, G.; Leggeri, C.; Caparello, G.; Barrea, L.; Scerbo, F.; Esposito, E. & De Lorenzo, A. (2020). Eating habits and lifestyle changes during COVID-19 lockdown: an Italian survey. *Journal of Translational Medicine*, 18(1), pp. 229. <https://doi.org/10.1186/s12967-020-02399-5>.
- Fegert, J. M.; Vitiello, B.; Plener, P. L. & Clemens, V. (2020). Challenges and burden of the Coronavirus 2019 (COVID-19) pandemic for child and adolescent mental health: a narrative review to highlight clinical and research needs in the acute phase and the long return to normality. *Child and Adolescent Psychiatry and Mental Health*, 14(1), pp. 20. <https://doi.org/10.1186/s13034-020-00329-3>.
- Fiorillo, A. & Gorwood, P. (2020). *The consequences of the COVID-19 pandemic on mental health and implications for clinical practice*. 63(1), pp. 1–2. <https://doi.org/10.1192/j.eurpsy.2020.35>.
- Garfin, D. R.; Silver, R. C. & Holman, E. A. (2020). The novel coronavirus (COVID-2019) outbreak: Amplification of public health consequences by media exposure. *Health Psychology*, Vol. 39, Issue 5, pp. 355–357. American Psychological Association. <https://doi.org/10.1037/hea0000875>.
- Greenberg, N.; Docherty, M.; Gnanapragasam, S. & Wessely, S. (2020). Managing mental health challenges faced by healthcare workers during covid-19 pandemic. *BMJ*, 368(m1211). <https://doi.org/10.1136/bmj.m1211>.
- Heath, C.; Sommerfield, A. & von Ungern-Sternberg, B. S. (2020). Resilience strategies to manage psychological distress amongst healthcare workers during the COVID-19 pandemic: a narrative review. *Anaesthesia*, n/a(n/a). <https://doi.org/10.1111/anae.15180>.
- Horesh, D. & Brown, A. D. (2020). Traumatic stress in the age of COVID-19: A call to close critical gaps and adapt to new realities. *Psychological Trauma: Theory, Research, Practice, and Policy*, 12(4), pp. 331–335. <https://doi.org/10.1037/tra0000592>.
- Li, S.; Wang, Y.; Xue, J.; Zhao, N. & Zhu, T. (2020). The Impact of COVID-19 Epidemic Declaration on Psychological Consequences: A Study on Active Weibo Users. *International Journal of*

- Environmental Research and Public Health*, 17(6), p. 2032. <https://doi.org/10.3390/ijerph17062032>
- Li, W.; Yang, Y.; Liu, Z.-H.; Zhao, Y.-J.; Zhang, Q.; Zhang, L.; Cheung, T. & Xiang, Y.-T. (2020). Progression of Mental Health Services during the COVID-19 Outbreak in China. *International Journal of Biological Sciences*, 16(10), pp. 1732–1738. <https://doi.org/10.7150/ijbs.45120>.
- Liu, X.; Luo, W.-T.; Li, Y.; Li, C.-N.; Hong, Z.-S.; Chen, H.-L.; Xiao, F. & Xia, J.-Y. (2020). Psychological status and behavior changes of the public during the COVID-19 epidemic in China. *Infectious Diseases of Poverty*, 9(1), p. 58. <https://doi.org/10.1186/s40249-020-00678-3>.
- Margaritis, I.; Houdart, S.; El Ouadrhiri, Y.; Bigard, X.; Vuillemin, A. & Duché, P. (2020). How to deal with COVID-19 epidemic-related lockdown physical inactivity and sedentary increase in youth? Adaptation of Anses' benchmarks. *Archives of Public Health*, 78(1), p. 52. <https://doi.org/10.1186/s13690-020-00432-z>.
- Mayring, P. (2004). Qualitative Content Analysis. In Flick, U. von Kardorff, E. & Steinke, I. (Eds.), *A Companion to Qualitative Research*. Sage Publications.
- Otu, A.; Charles, C. H. & Yaya, S. (2020). Mental health and psychosocial well-being during the COVID-19 pandemic: the invisible elephant in the room. *International Journal of Mental Health Systems*, 14(1), p. 38. <https://doi.org/10.1186/s13033-020-00371-w>.
- Panthi, B.; Khanal, P.; Dahal, M.; Maharjan, S. & Nepal, S. (2020). An urgent call to address the nutritional status of women and children in Nepal during COVID-19 crises. *International Journal for Equity in Health*, 19(1), p. 87. <https://doi.org/10.1186/s12939-020-01210-7>.
- Prime, H.; Wade, M. & Browne, D. T. (2020). Risk and resilience in family well-being during the COVID-19 pandemic. *American Psychologist*, No Pagination Specified-No Pagination Specified. <https://doi.org/10.1037/amp0000660>.
- Qiu, J.; Shen, B.; Zhao, M.; Wang, Z.; Xie, B. & Xu, Y. (2020). A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. *General Psychiatry*, 33(2), e100213–e100213. <https://doi.org/10.1136/gpsych-2020-100213>.
- Roy, D.; Tripathy, S.; Kar, S. K.; Sharma, N.; Verma, S. K. & Kaushal, V. (2020). Study of knowledge, attitude, anxiety & perceived mental healthcare need in Indian population during COVID-19 pandemic. *Asian Journal of Psychiatry*, 51, p. 102083. <https://doi.org/10.1016/j.ajp.2020.102083>.
- Sibley, C. G.; Greaves, L. M.; Satherley, N.; Wilson, M. S.; Overall, N. C.; Lee, C. H. J.; Milojev, P.; Bulbulia, J.; Osborne, D.; Milfont, T. L.; Houkamau, C. A.; Duck, I. M.; Vickers-Jones, R. & Barlow, F. K. (2020). Effects of the COVID-19 pandemic and nationwide lockdown on trust, attitudes toward government, and well-being. *American Psychologist*, No Pagination Specified-No Pagination Specified. <https://doi.org/10.1037/amp0000662>.
- Torales, J.; O'Higgins, M.; Castaldelli-Maia, J. M. & Ventriglio, A. (2020). The outbreak of COVID-19 coronavirus and its impact on global mental health. *International Journal of Social Psychiatry*, pp. 1–4. <https://doi.org/10.1177/0020764020915212>.
- Touyz, S.; Lacey, H. & Hay, P. (2020). Eating disorders in the time of COVID-19. *Journal of Eating Disorders*, 8(1), p. 19. <https://doi.org/10.1186/s40337-020-00295-3>.