ONLINE MENTAL HEALTH SURVEY DURING COVID-19 OUTBREAK

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Abstract

Coronavirus disease 2019 (COVID-19) is a severe acute respiratory infection and is said to be originated from Wuhan city, Hubei Province, China in December, 2019. Its clinical presentation is characterized by respiratory infection, cold like symptoms and high grade fever. COVID-19 pandemic is much more than a health crisis. It has a huge impact on the mental health of the people too. The present study aims to conduct an online survey to investigate the mental health status of the people suffering from COVID-19 pandemic. Five aspects of the mental health are included in the study and these were physiological, psychological, cognitive/mood, self and the last is coping with emotions. A total of 554 people participated in the survey. It was found that 38.4% of the participants were afraid of their health, 29.4% of the participants were feeling frustrated and angry and 22.5% feeling lack of concentration. It was concluded that some participants were unable to cope up with the present situation and have excessive worries about their health. Many of the people who participated in survey were doing well at their homes and also started yoga, meditation and a habit of reading.

Keywords: Mental health, COVID-19 pandemic, stress, psychological immune system, mood, emotions

Theoretical Framework

Catastrophic pandemics have been taking place throughout the world since ages and centuries. A pandemic refers to a ferociously infectious disease that may occur in larger and multiple geographical areas and affects a significant proportion of the world's population over a period of months. Throughout history of out breaking pandemics cholera, plague, influenza, nipah virus, SARS, MERS, e-bola and swine flu are known to almost every individual of the world. Large scale outbreaks of infectious disease can greatly increase morbidity and mortality over a wide geographic area and are considered to cause significant social, economic and political disruption. Evidences suggests that, likelihood and occurrences of pandemics have markedly increased over past decades and centuries, this increment can be possibly due to globalization and integration, industrialization, urbanization, changes in land use and exploitation of the natural environment. Coronavirus disease 2019 (COVID-19) is a severe acute respiratory infection and is said to be originated from Wuhan city, Hubei Province, China in December, 2019. Its clinical presentation is characterized by respiratory infection, cold like symptoms and high grade fever.

Due to is unfortunate catastrophe of COVID-19 social distancing, isolation and quarantine are the suggested strategies for the prevention and these have acquired a lot of province recently in the context of COVID-19 pandemic. Social distancing refers to measures which are adopted by individuals to slow down or stop spread of this highly contagious disease, it involves limiting of social gatherings of the sort where there is possibility and risk of large people coming together for example, in schools, universities, malls, markets etc.

Isolation is that strategy in which positive diagnosed cases are separated from general population to prevent transmission. Quarantine is separating those individuals who are suspected of the disease for few days, like 14 days to check whether they show any symptoms or not, this strategy helps in reducing the risk of infection by them. World-widely as well as Government of India (GOI) is adopting these measures in order to prevent the spread of this COVID-19 pandemic. For this, our hon'ble Prime Minister Sh. Narendra Modi declared lockdown which followed the janta curfew on 22/3/2020 for 21 days and which was extended further by 19 days.

It can be assumed that the lockdown may have detrimental effects on the physiological health, well being as well as mental health of the people of our nation. Physiological aspects are those which are related to physical body such as bodily functions, physical health, weight and growth of body. Regular exercise, healthy environment, diet all increases the physical development in a positive manner. Physiological symptoms are important to study while dealing with the mental health because physical health signs or symptoms make the diagnosis or assessment more appropriate. COVID-19 pandemic reduces the well being and mental health of the mass. Medical isolation during the Korean MERS outbreak has caused high level of stress in patients (Kim et al., 2019). Singh and Raju (2020) describe the psychosocial impact of COVID-19 among the mass. According to authors depression, loneliness due to lockdown, internet gaming addiction, trauma were the psychological impact and mass media, domestic violence, finance issues, medical and religious issues were the social impact among the general population in India. Xiang, Yang, Li, Zhang, Zhang, Cheung and Ng (2020) quarantine people might experience boredom, loneliness and anger. Isolated people also fear about their health and family members. Further cough, fever has adverse effects of treatment such as insomnia which leads to anxiety and distress among people.

Further psychological problems leads to lack of attention, decreases decision making capacity of the health workers and quarantined people which could hinder the fight against COVID-19 and had lasting impact on the health and well being of the people (Kang et al., 2020). Their cognitive aspect which deals with the thought processes, concentration, memory, attention decreases gradually. Its psycho-social consequences can be loneliness, social isolation, devoid of enjoyable activates, limit to essential services and burden of managing all the household chores all together. In its addiction, a fear of infection, frustration or boredom, finances and non-availability of supplies are common markers for stress which can lead to health related anxiety, acute stress reaction, low mood, intermittent episodes of anxiety, panic attacks and disturbances in the sleep and appetite of the individuals. Torales, Higgins, Castaldelli-Maia and Ventriglio (2020) COVID-19 evolve into long term health problems, mental health issues globally. Health measures should be employed to address psychosocial stressors, particularly related to the use of isolation/quarantine, fear and vulnerability among the general population.

Self aspect in the present investigation is again an important and dire need of the hour to study. It includes the self perception, self awareness, self esteem, ability etc. View of self plays an imperative role to monitor in any adverse situation and it also portrays the mental health of the person. Coping with emotions is simply to deal with emotions in a positive manner. Without emotions life is dull and boring. However negative emotions and in a pessimistic circumstances also makes the person unhappy and unable to deal with circumstances like COVID-19. Thus to maintain self confidence and to cope with the adverse situations is very important in the present scenario. To address this, famous mental health and medical institutions of our nation are running tele-counselling helplines services24x7 and mental health as well as health professionals have volunteered to render their services to address this cause. **Thus this study aims at gathering information from the citizens of our nation about their mental health and well being in his lockdown so that their mental health can be targeted addressed in an appropriate manner.**

On the basis of available literature following hypotheses have been formulated:

1. It is assumed that the physiological health of the people reduces due to COVID-19 pandemic.
2. It is assumed that the psychological health of the people reduces due to COVID-19 pandemic
3. It is assumed that the cognitive process and mood of the people decreases due to COVID-19 pandemic
4. It is assumed that the self status of the people reduces due to COVID-19 pandemic
5. It is assumed that coping with emotions of the people reduces due to COVID-19 pandemic

Methodology

Tools Used

In this investigation researcher used the self developed tool of mental health with respect to COVID-19 pandemic which includes five dimensions and these were physiological, psychological, cognitive/mood, self and the last is coping with emotions. It mainly comprised of demographic information as well as questions from the above mentioned five dimensions. Total number of items was 25 and each dimension have 5 items.

Procedure

First of all tool was developed on Google form and was sent to the whtsapp groups. These people were informed that the purpose of the study was to understand the impact of COVID-19 pandemic on the mental health. Informed consent was taken and people who were willing to participate in the survey completed the questionnaire.

Statistical Analysis

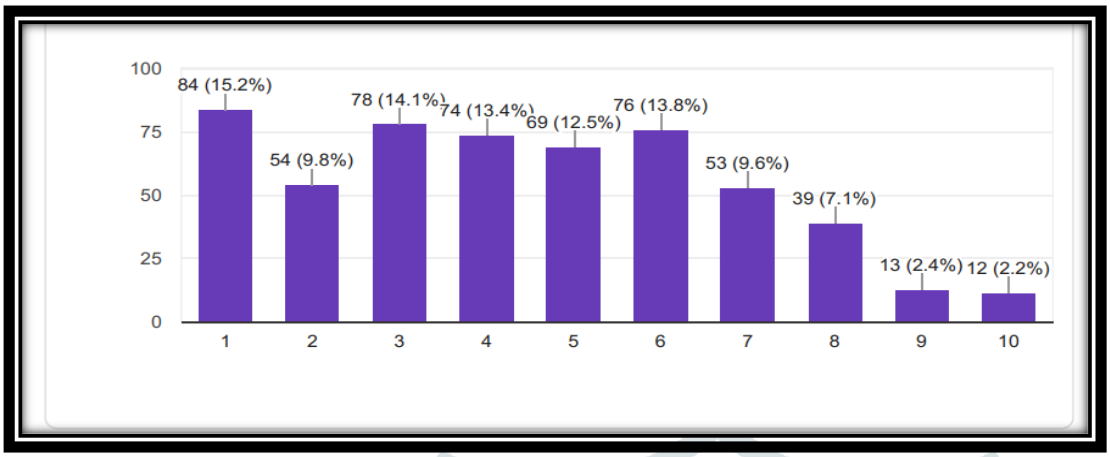
For the analysis of the participant's responses item wise and total percentage was calculated.

Results and Discussion

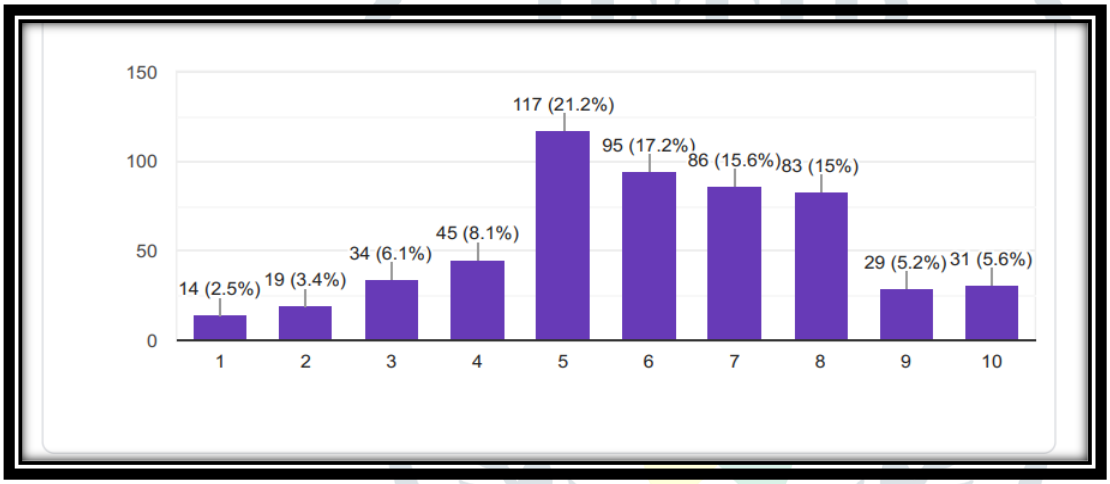
Table 1
Socio Demographic Information of the Participants in the Survey

Age	18-62 Years	
Gender	Male	177 (31.83%)
	Female	379 (68.16%)
Residence	Rural	16.8%
	Urban	83.2%
In the past two weeks, rate your overall degrees of stress	Mild (1-3)	216
	Moderate (4-6)	219
	Severe (7-10)	117
In the past two weeks, rate your mood	Poor (1-3)	67
	Moderate (4-6)	257
	Good (7-10)	229
In the past two weeks, rate your overall general health	Poor (1-3)	22
	Moderate (4-6)	93
	Good (7-10)	437
In the past two weeks, rate your overall quality of life	Poor (1-3)	26
	Moderate (4-6)	142
	Good (7-10)	385

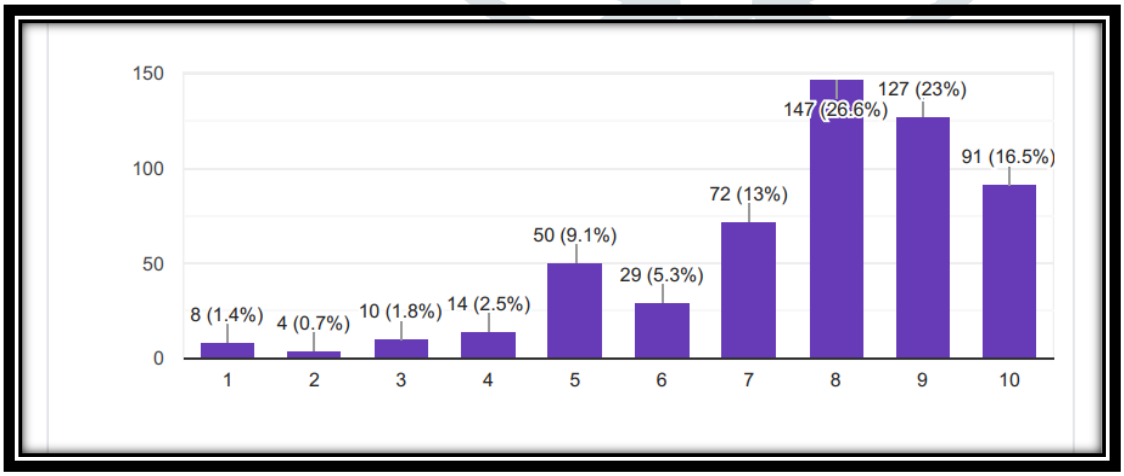
- **In the past two weeks, rate your overall degrees of stress**



- **In the past two weeks, rate your mood**



- **In the past two weeks, rate your overall general health**



- **In the past two weeks, rate your overall quality of life**

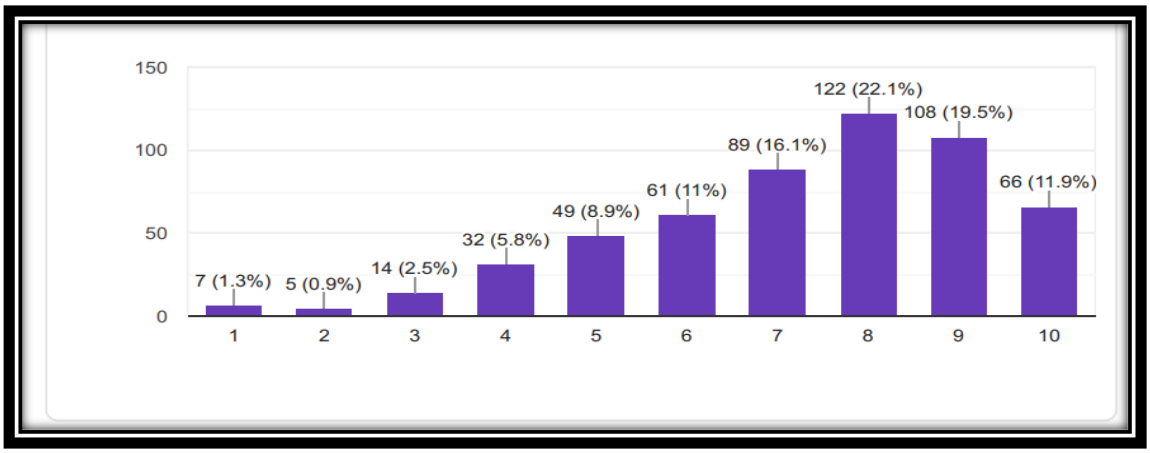


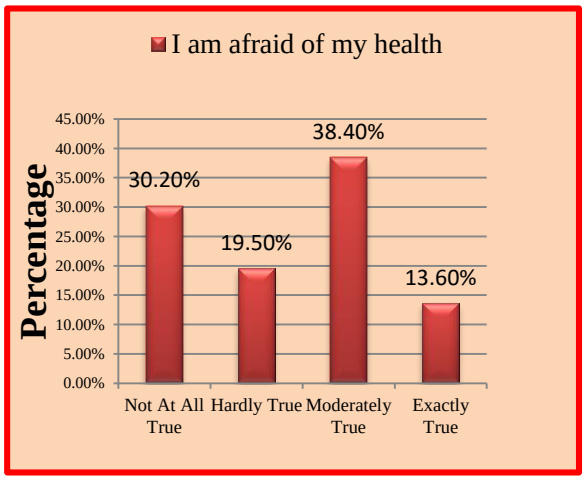
Table – 1 showing responses in terms of percentage (N = 554)

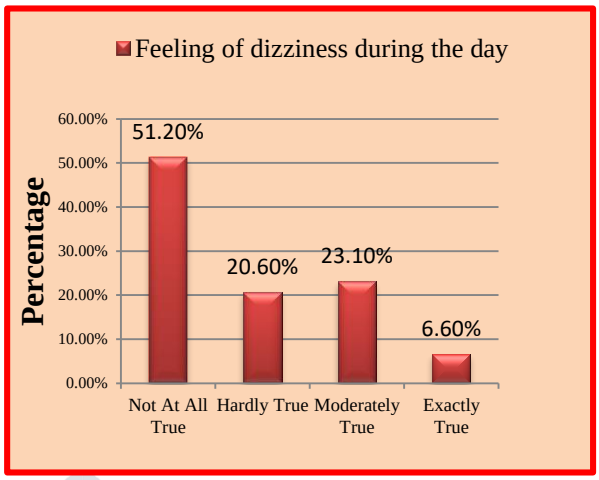
S.No	Items	Not At All True	Hardly True	Moderately True	Exactly True
A. Physiological Aspects					
1	I am afraid of my health	30.2	19.5	38.4	13.6
2	Feeling of dizziness during the day	51.2	20.6	23.1	6.6
3	Being in quarantine deteriorating my sleep quality	39.9	18.8	24	17.7
4	I am worried about my weight gain/loose in quarantine period	36.8	15.7	24.4	23.5
5	I take medicines to get my appetite normal	90	4.9	3.1	2.6
Overall percentage of physiological aspects		**49.62**	**15.9**	**22.6**	**12.8**
B. Psychological/Emotional Aspects					
1	I feel frustrated/angry	37.8	24.3	29.4	11.1
2	I feel like getting emotionally exhausted	38.1	25	25.5	12.6
3	I sometimes feel highly anxious	36.4	24.7	26	13.7
4	I feel like crying/weeping most of the time	68.5	15.7	11.5	4.9
5	I am much afraid of getting infected with the virus	36.9	27	26.3	11.5
Overall percentage of Psychological/Emotional Aspects		**43.54**	**23.34**	**23.74**	**10.7**
C. Cognitive/Mood Aspects					
1	I found difficult to relax	52.7	25	16.3	6.9
2	I am unable to quickly decide the things I used to before quarantine	54.9	25	14.5	6.4

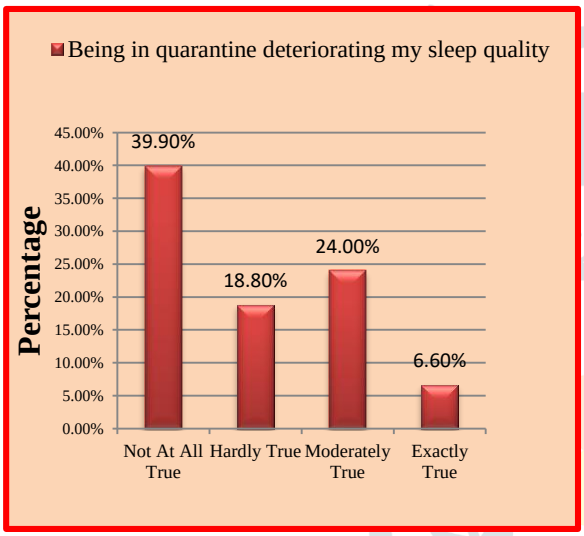
3	I feel lack of concentration	44.2	23	22.5	10.6
4	I feel sad due to missing of usual routine	26.6	24.4	31.1	19
5	I frequently experience a fear of dying	74	15.2	7.3	3.7
Overall percentage of Cognitive/Mood Aspects		**50.48**	**22.52**	**18.34**	**9.32**
D. Self					
1	I feel like nobody helps me to getting out of this quarantine	72.8	15.3	7.7	5.5
2	I feel like I have nothing to do	64.6	18.7	9.9	7.5
3	My working capacity has been reduced	47.2	22	19.4	12.4
4	I feel isolated from others because of quarantine	50.2	24.3	17.1	10.1
5	I am unable to reach out and communicate with those around me	46.1	17.2	22.6	15.8
Overall percentage of self		**56.18**	**19.5**	**15.34**	**10.26**
E. Coping with emotions					
1	I am unable to cope with COVID-19 disaster	62.5	23.4	10.3	4.4
2	I do yoga/meditation/exercises to increase immunity	40.3	26.8	14.1	19.4
3	I look forward with hope and enthusiasm	67.9	22	7.3	2.7
4	I started a habit of reading and writing during my quarantine period	38.6	29.1	15.3	17.5
5	Playing indoor games helps me to cope up with the quarantine period	47.2	27.3	12.9	13.5
Overall percentage of Coping with emotions		**51.3**	**25.72**	**11.98**	**11.5**

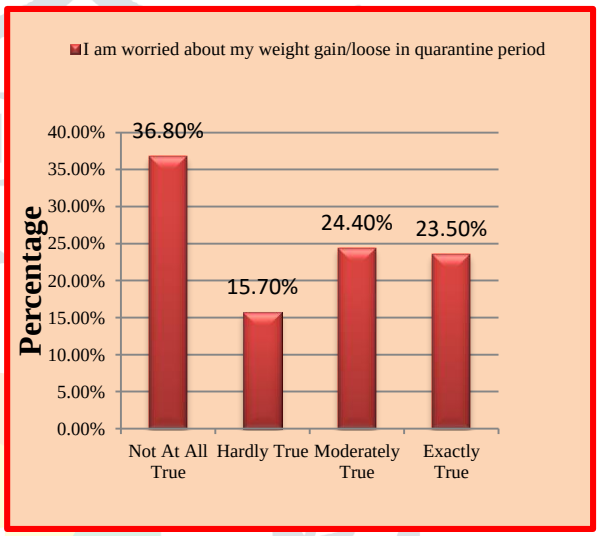
Graphical representation of the five aspects of mental health

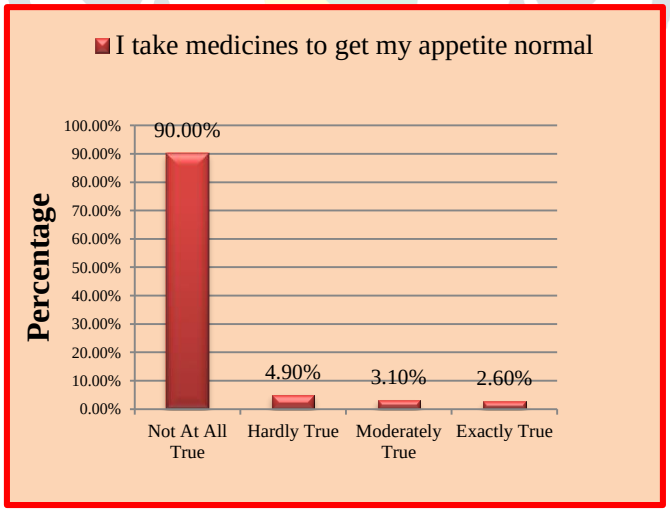
A. Physiological Aspects









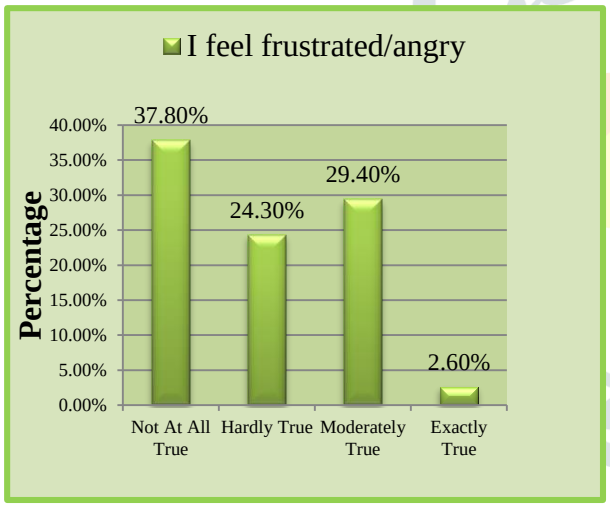


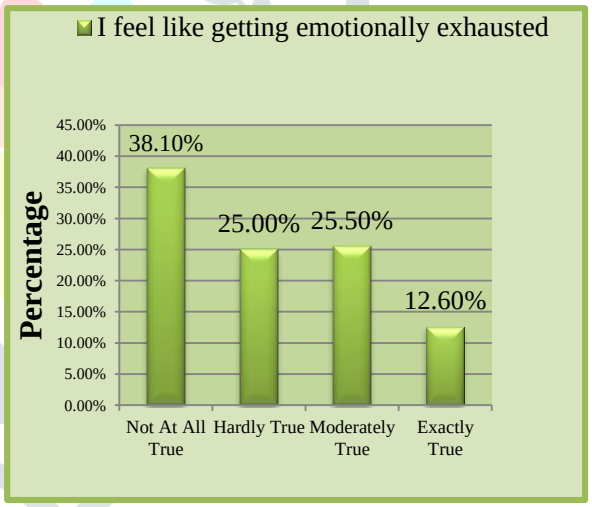
In the physiological aspect of the survey 38.4% people are quite frightened of their health, 13.6% of the people are terrified about the physical condition of health in the present scenario of COVID-19 pandemic. On the positive side 30.2% people are not afraid of their health might be because of they feel safe at home. 51.2% of the people do not feel lightheadedness or dizziness and on the other hand 23.1% of the people are feeling faintness during the day in the perspective of COVID-19 pandemic. Sleep quality of the people are

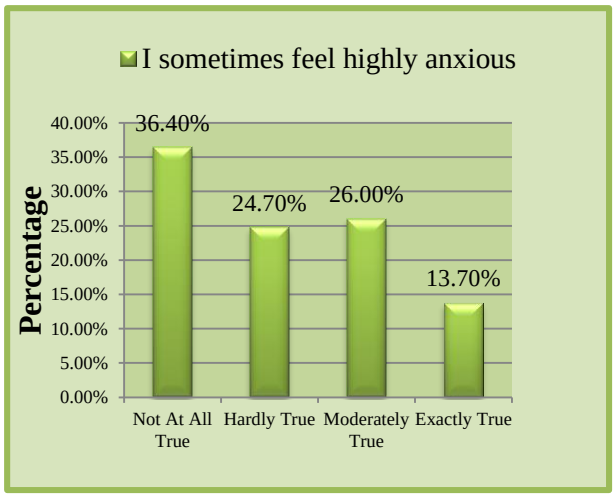
somehow affected and it is reported by 24% of the people, simultaneously 17.7 % of the people are definitely true about their response and accounted that quarantine worsen their sleep quality. On the other side 39.9% of the people reported that there is no reduction the quality of the sleep they have. 36.8% of the people are worriless about their weight gain/loss in quarantine period on the other hand 23.5% people are high on the concern about their weight as in the quarantine period they cannot move out of their houses. Majority of the people reported that they do not take any kind of medicine or pills to get their hunger normal.

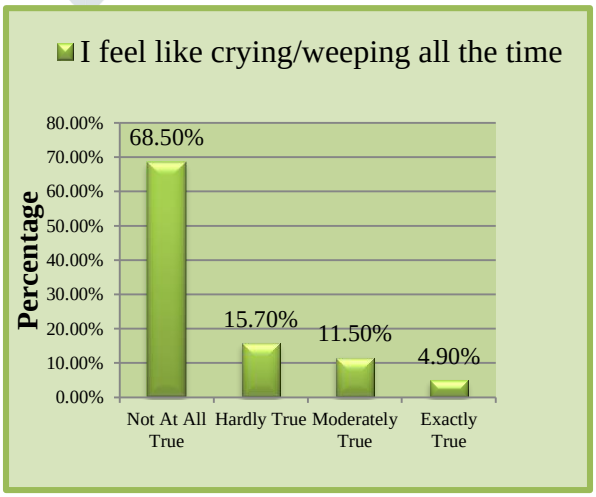
From the above physiological aspects of the mental health survey it can be concluded that 49.62 % of the people are free from afraid, worry, anxious, do not take medicines and have good quality of sleep in the present scenario of COVID19. Reasons may be that they are spending time with their families and feel safe at home. Awareness may be one of the reasons and people might take all the precautions to deal with coronovirus. If we take precautions it means we are conscious and ready to fight with the disease which makes us pleased, stronger and high in spirits. Commencing the results it can also be concluded that 22.6% of the participants are quite high on the symptoms of low quality sleep, they are worry about their weight and 12.8% of the people are pretty much sure about all these symptoms. Physiological health issues during COVID-19 pandemic is the natural response of the body however too much negative news or inaccurate messages, consistent thought processes, parents/ elderly worry about their children and further the financial issues makes the people feels dizzy and it all weaken their sleep quality. Lack of clarity about the different levels of risk causes people to fear or afraid.

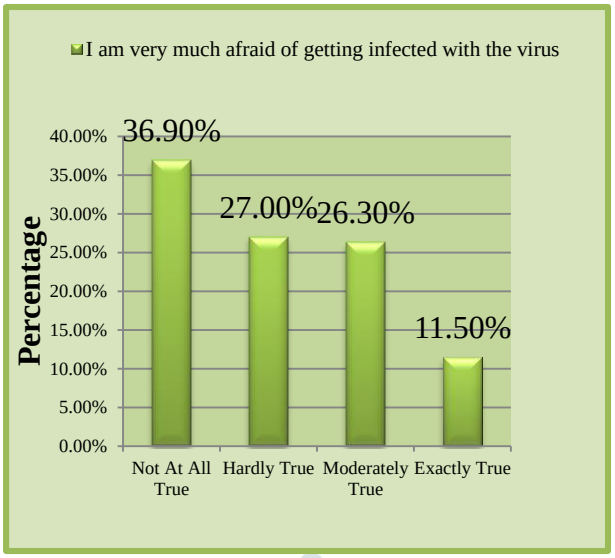
B. **Psychological/Emotional Aspects**









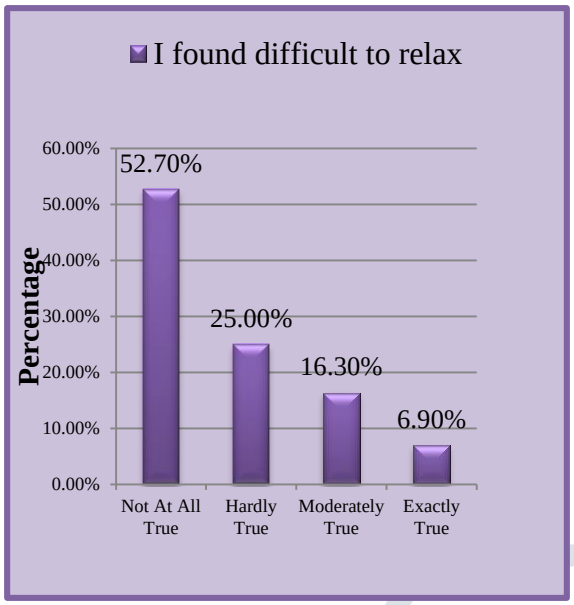


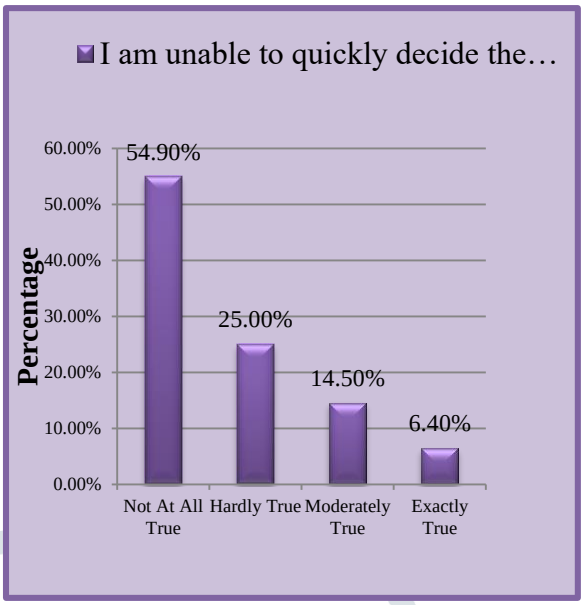
In the psychological/emotional aspect of the mental health survey 29.4% of the people are quite sure that they feel angry/frustrated, 11.1% of the people reported that they feels exactly angry in the present situation of quarantine due to COVID-19. On the other hand 37.8% of the people are normal and do not have such kind of negative emotions. 25.5% of the people reported that they feel like getting psychologically tired and 25% people are somehow feel the same emotions. 38.1% do not have these exhausted emotions. From the survey it is found that 26% of the sample stated enough fairly high anxious and 13.7% of the sample confirm that they are uneasy and concerned. People feels like crying or weeping in this lockdown and it is reported by 11.5% and only 4.9% of the sample are pretty much assure about these emotions. 26.3% of the people worry about their health and afraid of getting infected with the virus and at the same time 27% stated that this is hardly true in their perspectives.

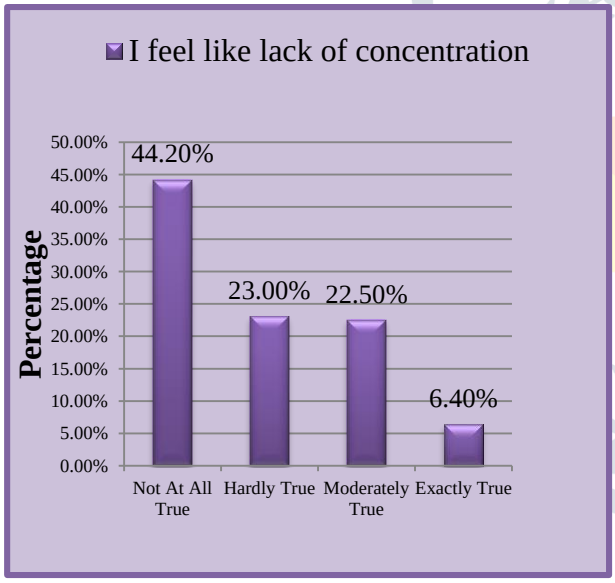
Overall findings of the emotions of the people in the lockdown or in the quarantine period revealed that majority of the people viz. 43.5% do not feel annoyed or angry, not afraid of getting infected with the virus and do not suffer from crying or weeping like emotions and also free from other negative emotions. From the calculated results it is also found that 23.7% of the people are frustrated or angry in the lockdown and feels like crying and also afraid from the infectious virus. In the lockdown the movement and interaction of the people is restricted and it is affected potentially. Even if they do not have any symptom they are not allowed to go out and it is truly scary.

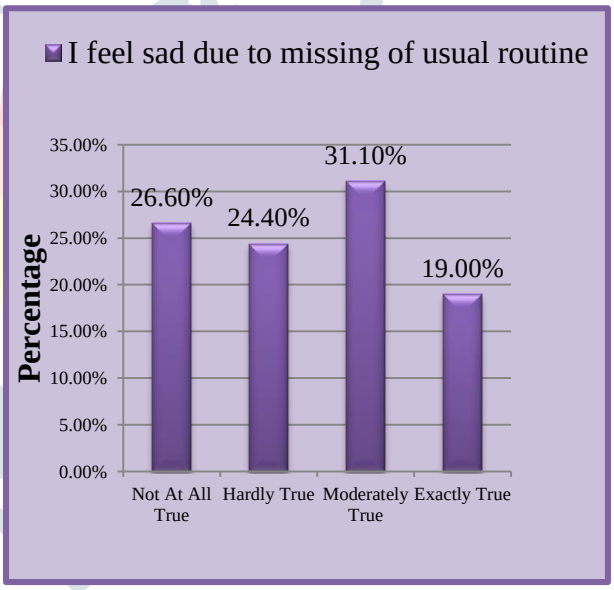
People become anxious however anxiety is common response to uncertainty and it actually enhances performance or steps to a degree but if the person is excessively avoiding the things, not able to function appropriately, stay in a situation of anxiety for too long is not good for physiological as well as for psychological health because it makes the sympathetic nervous system activated for long time. Every moment fear about their health or getting sick, thinking about financial losses due to inability to work, uncertainty over status of the situation creates more irritation and aggression. Insomnia, inability, resentment or bad tempers, anxious all are the results because of poor cope up during pandemic, lack of clarity, confusion what to do, lack of knowledge about precautions etc. It is important to pay attention to health effects during COVID-19 pandemic however it is not quite healthy to be much more scary and fearful. Approximately 5% of the sample reported that they feel like cry/weep all the time. It really needs self care and one should do the things which make them happy like yoga, meditation, writing the emotions/feelings also feel really cathartic.

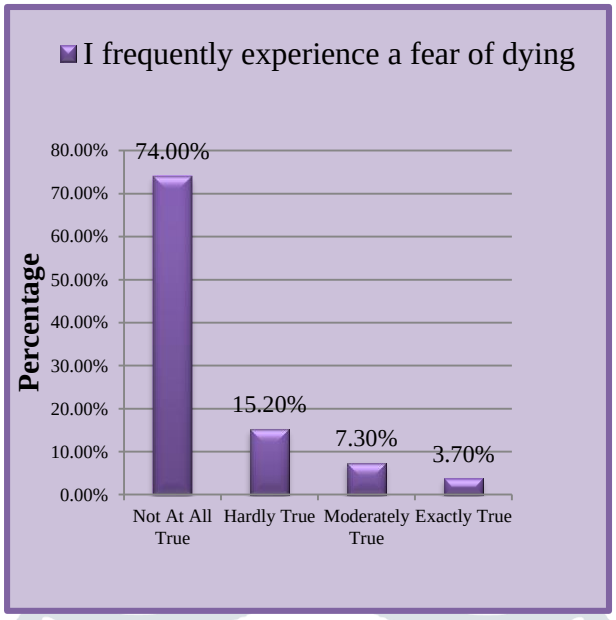
C. **Cognitive/Mood Aspects**







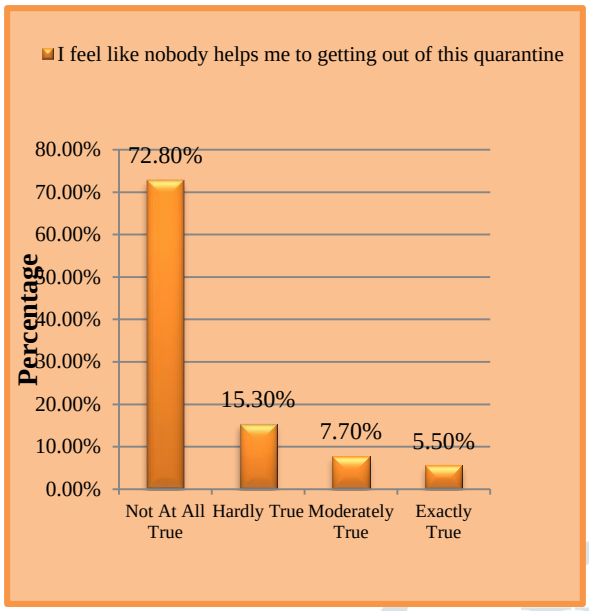


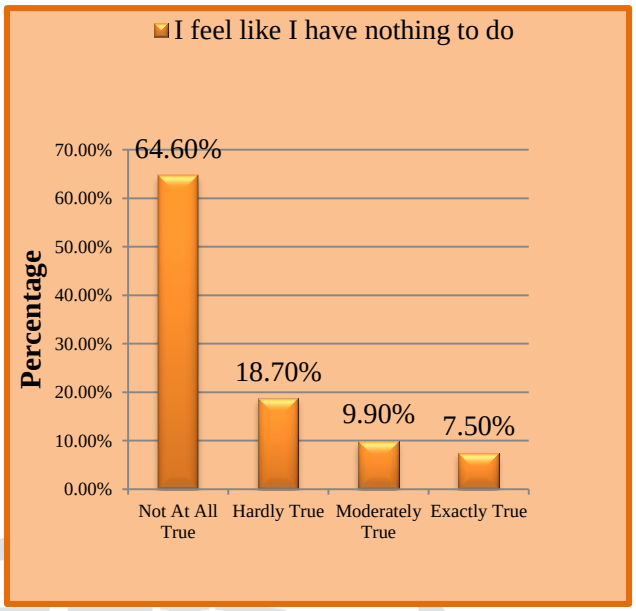


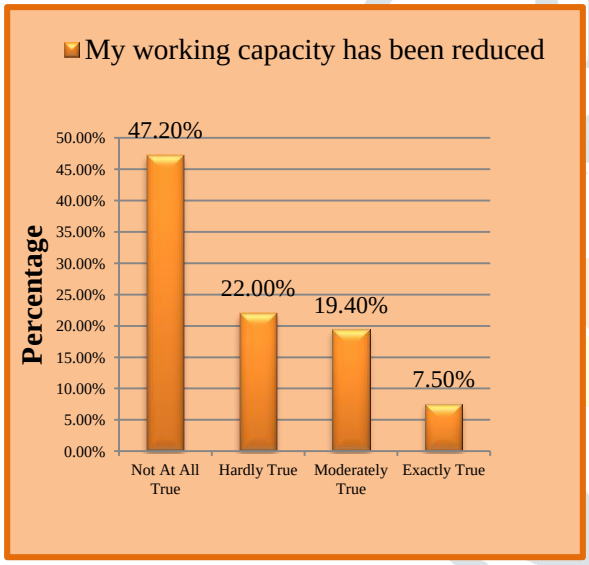
From the result of cognitive aspect and mood of the people under lockdown clearly reveals that majority of the participants viz. 52.7% reported that it is not difficult to relax, 54.9% accounts that they do things as they do before quarantine and in the concentration level the positive response in terms of percentage reduces 10% and 44.2% reported that they do not feel lack of concentration. 74% of the sample does not experience a fear of dying in COVID-19 pandemic and this is a healthy score. On the other perspective 22.5% of the people sense that there is deficient in concentration, 31.1% of the people feel sad due to missing of usual schedule and 19% of the people are pretty much sure about the sad feelings and reason is the missing of routine in the lockdown situation.

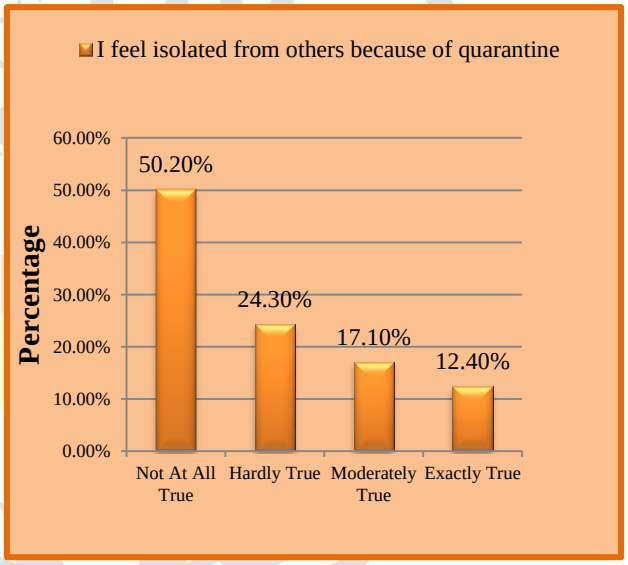
Consistent thoughts about COVID-19, not getting involved into household chores, being alone at home, watching news all the time or using social media where not all the news or information is true might be the reasons of sadness, lack of concentration. Always be on bed, not having schedule of awake, sleeping, eating, bathing etc is the reason of the person who might feels sad due to missing of usual routine. Because the person can develop any habit at home even, if you followed the routine of doing the things at home like washing, bathing, eating, reading, sleeping, dusting one cannot be feel sad or getting bored. Indoor games, dance, cooking too help to relax during this lockdown.

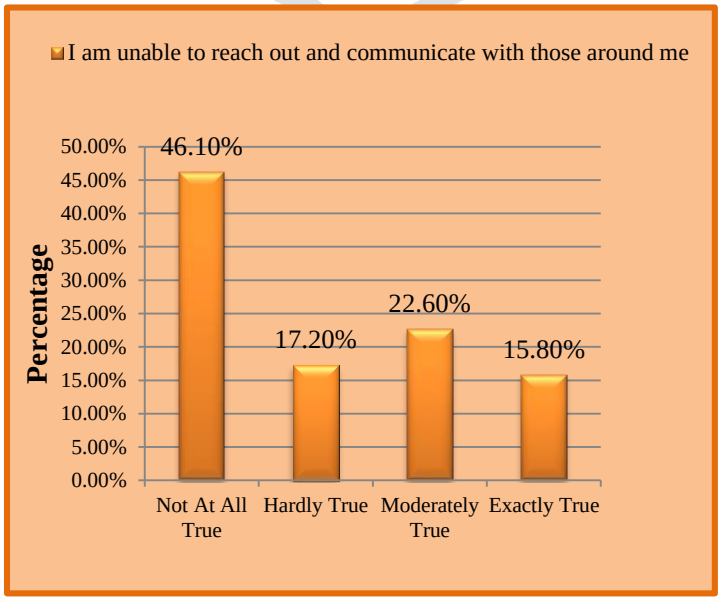
D. Self


I feel like nobody helps me to getting out of this quarantine
Percentage
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
72.80%
15.30%
7.70%
5.50%
Not At All True
Hardly True
Moderately True
Exactly True


I feel like I have nothing to do
Percentage
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
64.60%
18.70%
9.90%
7.50%
Not At All True
Hardly True
Moderately True
Exactly True


My working capacity has been reduced
Percentage
50.00%
45.00%
40.00%
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
47.20%
22.00%
19.40%
7.50%
Not At All True
Hardly True
Moderately True
Exactly True

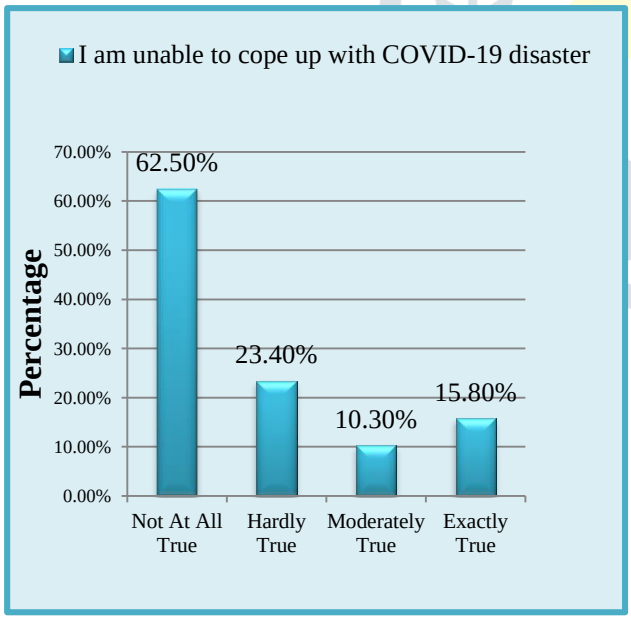

I feel isolated from others because of quarantine
Percentage
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
50.20%
24.30%
17.10%
12.40%
Not At All True
Hardly True
Moderately True
Exactly True

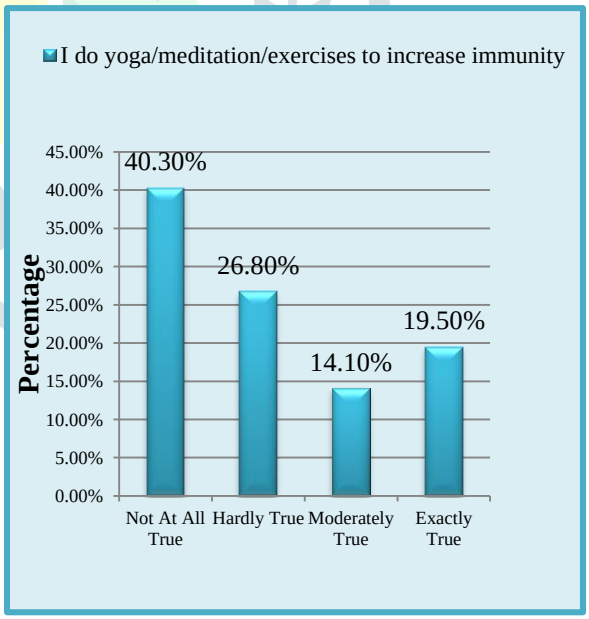

I am unable to reach out and communicate with those around me
Percentage
50.00%
45.00%
40.00%
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
46.10%
17.20%
22.60%
15.80%
Not At All True
Hardly True
Moderately True
Exactly True

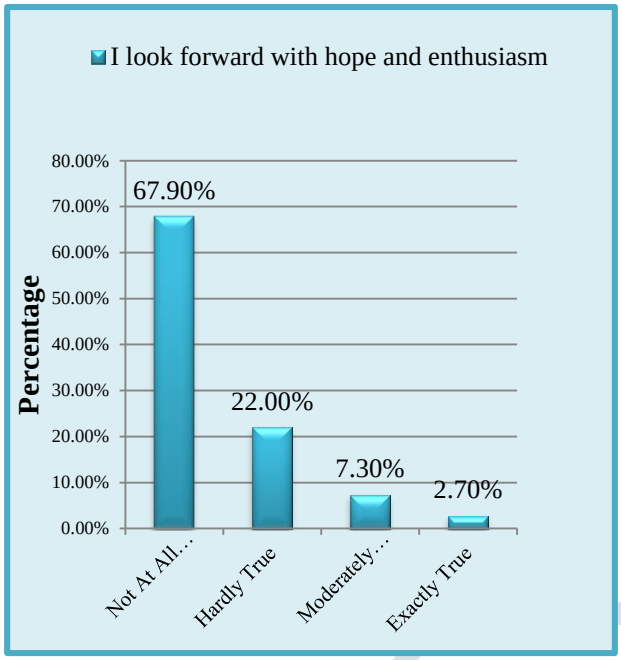
In the fourth perspective of mental health survey viz. self, majority of the responses are positive in all the items. 72.8% do not feel like nobody helps in the quarantine period, 64.6% of the people have many tasks to do at home and they do not feel like nothing to do, 50.2% do not feel isolated and 46.1% of the responses revealed that they do not feel that they are not able to communicate with others. 47.2% of the people's working capacity is not reduced even in the lockdown it means they have doing well at home. People at home have positive attitude towards self which enhances the motivation of others at home. There is a time to accelerate the self care and WHO-World Health Organization defines self care as "the ability of individuals, families and communities to promote health, prevent disease, maintain health and cope with illness and disability with or without the support of a healthcare provider". Within a COVID-19 response self care is the method to deal with. Self care does not mean that people cannot take help from the health workers and other staff. Taking help from the health workers, doctors, specialists also considers in the self care.

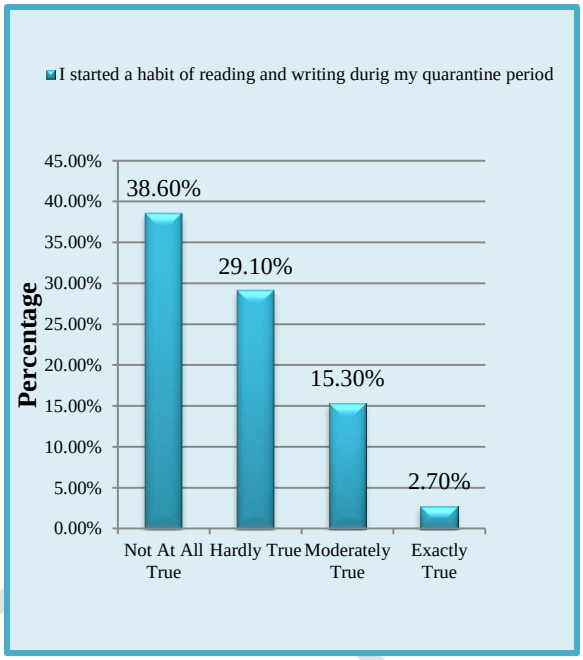
On the other hand 19.4% people reported that there working capacity has been reduced somehow and 12.4% are sure about this reduction in capacity and 22.6% reported that they are unable to reach out and communicate with the people around them. To enhance the self esteem and self efficacy awareness is urgently required. As awareness obviously increases confidence, ability and create enthusiastic environment. For example we can take precautionary measures only if we have authentic information about COVID-19. 10% of the participants feel isolated from other in quarantine. People used to meet friends, shake hands, hug each other and touch feet of the elders but in quarantine they cannot meet their friends or other family members. Thus it is difficult for them for being in quarantine for continuous 14 days or more and they feel isolated. But one should keep in mind that social distancing, quarantine and isolation is the only solution to fight with corona virus. There are so many things at home to do during quarantine period if one can really want to do. These household chores make the person busy, happy and the person does not feel isolated then.

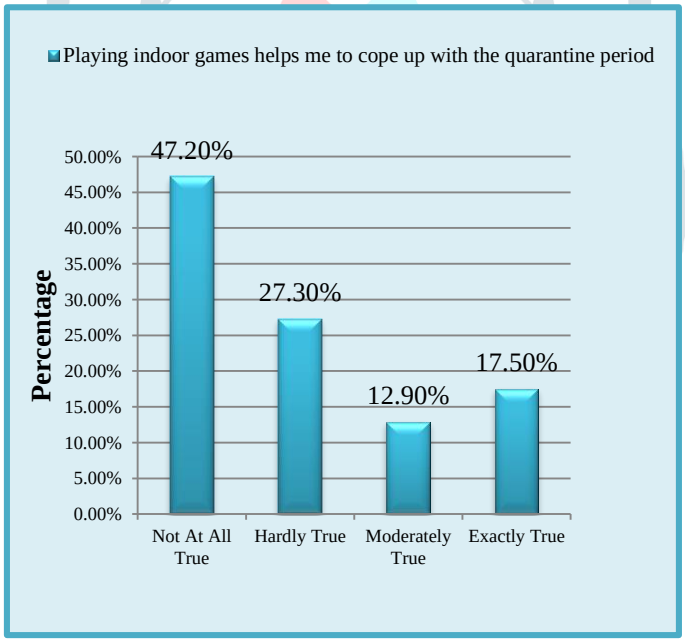
E. **Coping with emotions**











Coping with emotions is also the important aspect of the mental health which reveals being aware about emotions which influences the behaviour of the person. Anger, irritation, steady negative thoughts affects negatively on our health if we do not respond to them appropriately. In the present survey of mental health 62.5% are able to cope with the COVID-19 disaster, 40.3% doing yoga, meditation and exercise and it helps them to increase the immunity, 67.9% of the people are enthusiasm and have hope in future, 38.6% read books or magazine in the lockdown period at home and 47.2% participants engage in recreational or leisure activities, indoor games which helps the person to deal with adverse situations.

17.5% do not read or write during quarantine, approximately 4% of the people reported that they are unable to cope up with COVID-19 disaster, 19.4% do not used to do yoga/meditation/exercise, 13.5% people

stated that indoor games do not helps them to cope up with the quarantine period. No doubt novel corona virus disease infected and killed many people as rising death toll simultaneously decreases the coping strategy. It is understandable response to unknown, some are vulnerable and one should not use media and stick to trusted sources, wash hands regularly and have proper diet. To cope up with the destructive thoughts, emotions one should do something meaningful which will give you a sense of purpose, watch movies, listen songs, plan for the future, read books and stay in touch with friends via text messages.

CONCLUSIONS

From the above mentioned results it is concluded that mental health of the people are affected due to COVID-19. Social distancing, isolation, quarantine, lack of socialization, lack of interaction, negative thoughts, anger, frustration all are the reasons of poor mental health of the participants. Not all the participants are suffering from mental health issues many of them are doing well at home, playing with their kids, have fun, read books, have no worries about health, doing yoga, exercises for fitness or to increase immunity and have positive look toward the future. On the other side some of the participants are unable to cope up with the present situation and have excessive worries about their health. People are suggested to follow the routine as it was before lockdown but one should stay at home only. People can purify their bodies via healthy diet, good quality sleep and by spending quality time with family members. One can enhance simple living high thinking, creates humor, dance and people can also start painting at home to cope up with the COVID-19 pandemic.

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